Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala 435 440 445

Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu 450 455 460

Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu 465 470 475 480

Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr 485 490 495

Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg 500 505 510

Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys 515 520 525

Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu 530 540

Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys 545 550 555 560

Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu 565 570 575

Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr 580 585 590

Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys 595 600 605

Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr 610 620

Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu 625 630 635 640

Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly 645 650 655

Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 660 665

<210> 1596

<211> 666

<212> PRT

<213> Homo sapiens

<400> 1596

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ala Gly Val

Ser Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu

Gly Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr 35 40 45

Leu	Gln 50	Gln	Cys	Pro	Phe	Glu 55	Asp	His	Val	Lys	Leu 60	Val	Asn	Glu	Val
Thr 65	Glu	Phe	Ala	Lys	Thr 70	Cys	Val	Ala	Asp	Glu 75	Ser	Ala	Glu	Asn	Cys 80
Asp	Lys	Ser	Leu	His 85	Thr	Leu	Phe	Gly	Asp 90	Lys	Leu	Cys	Thr	Val 95	Ala
Thr	Leu	Arg	Glu 100	Thr	Tyr	Gly	Glu	Met 105	Ala	Asp	Cys	Cys	Ala 110	Lys	Gln
Glu	Pro	Glu 115	Arg	Asn	Glu	Cys	Phe 120	Leu	Gln	His	Lys	Asp 125	Asp	Asn	Pro
Asn	Leu 130	Pro	Arg	Leu	Val	Arg 135	Pro	Glu	Val	Asp	Val 140	Met	Cys	Thr	Ala
Phe 145	His	Asp	Asn	Glu	Glu 150	Thr	Phe	Leu	Lys	Lys 155	Tyr	Leu	Tyr	Glu	Ile 160
Ala	Arg	Arg	His	Pro 165	Tyr	Phe	Tyr	Ala	Pro 170	Glu	Leu	Leu	Phe	Phe 175	Ala
Lys	Arg	Tyr	Lys 180	Ala	Ala	Phe	Thr	Glu 185	Cys	Cys	Gln	Ala	Ala 190	Asp	Lys
Ala	Ala	Cys 195	Leu	Leu	Pro	Lys	Leu 200	Asp	Glu	Leu	Arg	Asp 205	Glu	Gly	Lys
Ala	Ser 210	Ser	Ala	Lys	Gln	Arg 215	Leu	Lys	Cys	Ala	Ser 220	Leu	Gln	Lys	Phe
Gly 225	Glu	Arg	Ala	Phe	Lys 230	Ala	Trp	Ala	Val	Ala 235	Arg	Leu	Ser	Gln	Arg 240
Phe	Pro	Lys	Ala	Glu 245	Phe	Ala	Glu	Val	Ser 250	Lys	Leu	Val	Thr	Asp 255	Leu
Thr	Lys	Val	His 260	Thr	G1u	Cys	Cys	His 265	Gly	Asp	Leu	Leu	Glu 270	Cys	Ala
Asp	Asp	Arg 275	Ala	Asp	Leu	Ala	Lys 280	Tyr	Ile	Cys	Glu	Asn 285	Gln	Asp	Ser
Ile	Ser 290	Ser	Lys	Leu	Lys	Glu 295	Cys	Cys	Glu	Lys	Pro 300	Leu	Leu	Glu	Lys
Ser 305	His	Cys	Ile	Ala	Glu 310	Val	Glu	Asn	Asp	Glu 315	Met	Pro	Ala	Asp	Leu 320
Pro	Ser	Leu	Ala	Ala 325	Asp	Phe	Val	Glu	Ser 330	Lys	Asp	Val	Cys	Lys 335	Asn
Tyr	Ala	Glu	Ala 340	Lys	Asp	Val	Phe	Leu 345	Gly	Met	Phe	Leu	Tyr 350	Glu	Tyr
Ala	Arg	Arg 355	His	Pro	Asp	Tyr	Ser 360	Val	Val	Leu	Leu	Leu 365	Arg	Leu	Ala
Lys	Thr 370	Tyr	Glu	Thr	Thr	Leu 375	Glu	Lys	Cys	Cys	Ala 380	Ala	Ala	Asp	Pro

His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu 390 395 Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys 425 Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu 440 Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met 455 Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val 475 Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp 500 505 Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu 545 550 555 Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu 615 Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys 650 Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn

<210> 1597

<211> 719

<212> PRT

<213> Homo sapiens

660

<400> 1597

665

Met 1	Lys	Leu	Lys	Thr 5	Val	Arg	Ser	Ala	Val 10	Leu	Ser	Ser	Leu	Phe 15	Ala
Ser	Gln	Val	Leu 20	Gly	Gln	Pro	Ile	Asp 25	Asp	Thr	Glu	Ser	Gln 30	Thr	Thr
Ser	Val	Asn 35	Leu	Met	Ala	Asp	Asp 40	Thr	Glu	Ser	Ala	Phe 45	Ala	Thr	Gln
Thr	Asn 50	Ser	Gly	Gly	Leu	Asp 55	Val	Val	Gly	Leu	Ile 60	Ser	Met	Ala	Lys
Arg 65	Glu	Glu	Gly	Glu	Pro 70	Lys	Phe	Val	Asn	Gln 75	His	Leu	Суѕ	Gly	Ser 80
His	Leu	Val	Glu	Ala 85	Leu	Tyr	Leu	Val	Cys 90	Gly	Glu	Arg	Gly	Phe 95	Phe
Tyr	Thr	Pro	Lys 100	Thr	Gly	Tyr	Gly	Ser 105	Ser	Ser	Arg	Arg	Ala 110	Pro	Gln
Thr	Gly	Ile 115	Val	Glu	Gln	Cys	Cys 120	Thr	Ser	Ile	Cys	Ser 125	Leu	Tyr	Gln
Leu	Glu 130	Asn	Tyr	Cys	Asn	Asp 135	Ala	His	Lys	Ser	Glu 140	Val	Ala	His	Arg
Phe 145	Lys	Asp	Leu	Gly	Glu 150	Glu	Asn	Phe	Lys	Ala 155	Leu	Val	Leu	Ile	Ala 160
Phe	Ala	Gln	Tyr	Leu 165	Gln	Gln	Суѕ	Pro	Phe 170	Glu	Asp	His	Val	Lys 175	Leu
Val	Asn	Glu	Val 180	Thr	Glu	Phe	Ala	Lys 185	Thr	Cys	Val	Ala	Asp 190	Glu	Ser
Ala	Glu	Asn 195	Cys	Asp	Lys	Ser	Leu 200	His	Thr	Leu	Phe	Gly 205	Asp	Lys	Leu
Cys	Thr 210	Val	Ala	Thr	Leu	Arg 215	Glu	Thr	Tyr	Gly	Glu 220	Met	Ala	Asp	Суѕ
Cys 225	Ala	Lys	Gln	Glu	Pro 230	Glu	Arg	Asn	Glu	Cys 235	Phe	Leu	Gln	His	Lys 240
Asp	Asp	Asn	Pro	Asn 245	Leu	Pro	Arg	Leu	Val 250	Arg	Pro	Glu	Val	Asp 255	Val
Met	Суѕ	Thr	Ala 260	Phe	His	Asp	Asn	Glu 265	Glu	Thr	Phe	Leu	Lys 270	Lys	Tyr
Leu	Tyr	Glu 275	Ile	Ala	Arg	Arg	His 280	Pro	Tyr	Phe	Tyr	Ala 285	Pro	Glu	Leu
Leu	Phe 290	Phe	Ala	Lys	Arg	Туг 295	Lys	Ala	Ala	Phe	Thr 300	Glu	Cys	Cys	Gln
Ala 305	Ala	Asp	Lys	Ala	Ala 310	Cys	Leu	Leu	Pro	Lys 315	Leu	Asp	Glu	Leu	Arg 320
Asp	Glu	Gly	Lys	Ala	Ser	Ser	Ala		Gln		Leu	Lys	Cys	Ala 335	

Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg 345 Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp 440 Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 470 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala 490 Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys 505 Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu 520 Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr 600 Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln 650 Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys

Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe 675 680 685

Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 690 695 700

Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 705 710 715

<210> 1598

<211> 659

<212> PRT

<213> Homo sapiens

<400> 1598

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240

Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 265 Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 280 Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 295 Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 330 Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 490 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 535 Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 570

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 595 600 605

Leu Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe 610 615 620

Ala Ser Arg Asn Asp Tyr Ser Tyr Trp Leu Thr Met Pro Phe Leu Phe 625 630 635 640

Cys Asn Val Asn Asp Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser 645 650 655

Tyr Trp Leu

<210> 1599

<211> 663

<212> PRT

<213> Homo sapiens

<400> 1599

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205 Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 215 Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 265 Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 295 Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp 315 Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly 345 Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val 360 Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu 390 395 Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys 410 Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu 425 Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 490 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 535

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 555 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 595 600 605

Leu Lys Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn 610 615 620

Asp Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Lys Gln Arg Phe 625 630 635 640

Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe 645 650 655

Ala Ser Arg Asn Asp Tyr Ser 660

<210> 1600

<211> 687

<212> PRT

<213> Homo sapiens

<400> 1600

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Trp Gln Glu Trp Glu Gln Lys Ile \$20\$ \$25\$ \$30

Thr Ala Leu Leu Glu Gln Ala Gln Ile Gln Gln Glu Lys Asn Glu Tyr 35 40 45

Glu Leu Gln Lys Leu Asp Lys Trp Ala Ser Leu Trp Glu Trp Phe Trp 50 55 60

Gln Glu Trp Glu Gln Lys Leu Thr Ala Leu Leu Glu Gln Ala Gln Ile 65 70 75 80

Gln Gln Glu Lys Asn Glu Tyr Glu Leu Gln Lys Leu Asp Lys Trp Ala 85 90 95

Ser Leu Trp Glu Trp Phe Asp Ala His Lys Ser Glu Val Ala His Arg 100 105 110

Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala 115 120 125

Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu 130 135 140

Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser 145 150 155 160

Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu

Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys 185 Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys 200 Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val 215 Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu 250 Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser 295 Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg 315 Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu 360 Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp 405 410 Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 440 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala 455 Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu 490

Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg

Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val 515 520 525

Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu 530 535 540

Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn 545 550 555 560

Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr 565 570 575

Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala 580 585 590

Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr
595 600 605

Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln 610 620

Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys 625 630 635 640

Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe 645 650 655

Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 660 665 670

Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu
675 680 685

<210> 1601

<211> 736

<212> PRT

<213> Homo sapiens

<400> 1601

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 1 5 10 15

Ile Ser Ala Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr 20 25 30

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn 35 40 45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His $50 \hspace{1cm} 55 \hspace{1cm} 60$

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp Met Lys Glu Asn Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr 85 90 95

Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu 100 105 110

Thr	Asn	Ser 115	Gln	Cys	Ser	Lys	Pro 120	Gly	Ile	Val	Phe	Ile 125	Thr	Lys	Arg
Gly	His 130	Ser	Val	Cys	Thr	Asn 135	Pro	Ser	Asp	Lys	Trp 140	Val	Gln	Asp	Tyr
Ile 145	Lys	Asp	Met	Lys	Glu 150	Asn	Asp	Ala	His	Lys 155	Ser	Glu	Val	Ala	His 160
Arg	Phe	Lys	Asp	Leu 165	Gly	Glu	Glu	Asn	Phe 170	Lys	Ala	Leu	Val	Leu 175	Ile
Ala	Phe	Ala	Gln 180	Tyr	Leu	Gln	Gln	Cys 185	Pro	Phe	Glu	Asp	His 190	Val	Lys
Leu	Val	Asn 195	Glu	Val	Thr	Glu	Phe 200	Ala	Lys	Thr	Cys	Val 205	Ala	Asp	Glu
Ser	Ala 210	Glu	Asn	Cys	Asp	Lys 215	Ser	Leu	His	Thr	Leu 220	Phe	Gly	Asp	Lys
Leu 225	Cys	Thr	Val	Ala	Thr 230	Leu	Arg	Glu	Thr	Tyr 235	Gly	Glu	Met	Ala	Asp 240
Cys	Cys	Ala	Lys	Gln 245	Glu	Pro	Glu	Arg	Asn 250	Glu	Cys	Phe	Leu	Gln 255	His
Lys	Asp	Asp	Asn 260	Pro	Asn	Leu	Pro	Arg 265	Leu	Val	Arg	Pro	Glu 270	Val	Asp
Val	Met	Cys 275	Thr	Ala	Phe	His	Asp 280	Asn	Glu	Glu	Thr	Phe 285	Leu	Lys	Lys
Tyr	Leu 290	Tyr	Glu	Ile	Ala	Arg 295	Arg	His	Pro	Tyr	Phe 300	Tyr	Ala	Pro	Glu
Leu 305	Leu	Phe	Phe	Ala	Lys 310	Arg	Tyr	Lys	Ala	Ala 315	Phe	Thr	Glu	Cys	Cys 320
Gln	Ala	Ala	Asp	Lys 325	Ala	Ala	Cys	Leu	Leu 330	Pro	Lys	Leu	Asp	Glu 335	Leu
Arg	Asp	Glu	Gly 340	Lys	Ala	Ser	Ser	Ala 345	Lys	Gln	Arg	Leu	Lys 350	Cys	Ala
Ser	Leu	Gln 355	Lys	Phe	Gly	Glu	Arg 360	Ala	Phe	Lys	Ala	Trp 365	Ala	Val	Ala
Arg	Leu 370	Ser	Gln	Arg	Phe	Pro 375	Lys	Ala	Glu	Phe	Ala 380	Glu	Val	Ser	Lys
Leu 385	Val	Thr	Asp	Leu	Thr 390	Lys	Val	His	Thr	Glu 395	Cys	Суз	His	Gly	Asp 400
Leu	Leu	Glu	Cys	Ala 405	Asp	Asp	Arg	Ala	Asp 410	Leu	Ala	Lys	Tyr	Ile 415	Cys
Glu	Asn	Gln	Asp 420	Ser	Ile	Ser	Ser	Lys 425	Leu	Lys	Glu	Cys	Cys 430	Glu	Lys
Pro	Leu	Leu 435	Glu	Lys	Ser	His	Cys 440	Ile	Ala	Glu	Val	Glu 445	Asn	Asp	Glu

Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys 455 Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met 470 475 Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu 490 Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe 520 Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu 535 Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu 565 570 Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Lys His Pro 585 Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val 615 620 Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg 665 Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala 695 Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala 710 Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 730

<210> 1602

<211> 640

<212> PRT

<213> Homo sapiens

<400> 160			_									
Met Lys \ 1	Val Ser	Val Al 5	a Ala	Leu	Ser	Cys 10	Leu	Met	Leu	Val	Thr 15	Ala
Leu Gly S	Ser Gln 20	Ala Se	r Val	Ser	Glu 25	Ile	Gln	Leu	Met	His 30	Asn	Leu
Gly Lys H	His Leu 35	Asn Se	r Met	Glu 40	Arg	Val	Glu	Trp	Leu 45	Arg	Lys	Lys
Leu Gln A	Asp Val	His As	n Phe 55	Asp	Ala	His	Lys	Ser 60	Glu	Val	Ala	His
Arg Phe I 65	Lys Asp		y Glu O	Glu	Asn	Phe	Lys 75	Ala	Leu	Val	Leu	Ile 80
Ala Phe A	Ala Gln	Tyr Le 85	u Gln	Gln	Cys	Pro 90	Phe	Glu	Asp	His	Val 95	Lys
Leu Val A	Asn Glu 100	Val Th	r Glu	Phe	Ala 105	Lys	Thr	Cys	Val	Ala 110	Asp	Glu
Ser Ala (Glu Asn 115	Cys As	p Lys	Ser 120	Leu	His	Thr	Leu	Phe 125	Gly	Asp	Lys
Leu Cys 1 130	Thr Val	Ala Th	r Leu 135	Arg	Glu	Thr	Tyr	Gly 140	Glu	Met	Ala	Asp
Cys Cys A	Ala Lys	Gln Gl 15		Glu	Arg	Asn	Glu 155	Cys	Phe	Leu	Gln	His 160
Lys Asp A	Asp Asn	Pro As 165	n Leu	Pro	Arg	Leu 170	Val	Arg	Pro	Glu	Val 175	Asp
Val Met (Cys Thr 180	Ala Ph	e His	Asp	Asn 185	Glu	Glu	Thr	Phe	Leu 190	Lys	Lys
Tyr Leu 1	Tyr Glu 195	Ile Al	a Arg	Arg 200	His	Pro	Tyr	Phe	Туг 205	Ala	Pro	Glu
Leu Leu E 210	Phe Phe	Ala Ly	s Arg 215	Tyr	Lys	Ala	Ala	Phe 220	Thr	Glu	Cys	Cys
Gln Ala A 225	Ala Asp	Lys Al 23		Cys	Leu	Leu	Pro 235	Lys	Leu	Asp	Glu	Leu 240
Arg Asp (Glu Gly	Lys Al 245	a Ser	Ser	Ala	Lys 250	Gln	Arg	Leu	Lys	Cys 255	Ala
Ser Leu (Gln Lys 260	Phe Gl	y Glu	Arg	Ala 265	Phe	Lys	Ala	Trp	Ala 270	Val	Ala
Arg Leu S	Ser Gln 275	Arg Ph	e Pro	Lys 280	Ala	Glu	Phe	Ala	Glu 285	Val	Ser	Lys
Leu Val 1 290	Phr Asp	Leu Th	r Lys 295	Val	His	Thr	Glu	Cys 300	Cys	His	Gly	Asp

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys 305 310 315 315

Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys 325 330 Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val 455 Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu 475 Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu 505 Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val 520 Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu 550 Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro 585 Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 630 635

<210> 1603

<211> 640

<212> PRT

<213> Homo sapiens

<400> 1603

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Ser Val Ser Glu Ile Gln Leu Met His Asn Leu 20 25 30

Gly Lys His Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys 35 40 45

Leu Gln Asp Val His Asn Phe Asp Ala His Lys Ser Glu Val Ala His 50 60

Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile 65 70 75 80

Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys
85 90 95

Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu 100 105 110

Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys 115 120 125

Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp 130 135 140

Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His 145 150 155 160

Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp 165 170 175

Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys 180 185 190

Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu 195 200 205

Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys 210 215 220

Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu 225 - 230 - 235 - 240

Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala

Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala 260 265 270

Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys 275 280 285

Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp

305	Leu	GIU	Cys	АТА	310	Asp	Arg	Ala	Asp	315	Ala	Lys	Tyr	IIe	320
Glu	Asn	Gln	Asp	Ser 325	Ile	Ser	Ser	Lys	Leu 330	Lys	Glu	Cys	Суѕ	Glu 335	Lys
Pro	Leu	Leu	Glu 340	Lys	Ser	His	Cys	Ile 345	Ala	Glu	Val	Glu	Asn 350	Asp	Glu
Met	Pro	Ala 355	Asp	Leu	Pro	Ser	Leu 360	Ala	Ala	Asp	Phe	Val 365	Glu	Ser	Lys
Asp	Val 370	Cys	Lys	Asn	Tyr	Ala 375	Glu	Ala	Lys	Asp	Val 380	Phe	Leu	Gly	Met
Phe 385	Leu	Tyr	Glu	Tyr	Ala 390	Arg	Arg	His	Pro	Asp 395	Tyr	Ser	Val	Val	Leu 400
Leu	Leu	Arg	Leu	Ala 405	Lys	Thr	Tyr	Glu	Thr 410	Thr	Leu	Glu	Lys	Cys 415	Cys
Ala	Ala	Ala	Asp 420	Pro	His	Glu	Cys	Туr 425	Ala	Lys	Val	Phe	Asp 430	Glu	Phe
Lys	Pro	Leu 435	Val	Glu	Glu	Pro	Gln 440	Asn	Leu	Ile	Lys	Gln 445	Asn	Cys	Glu
Leu	Phe 450	Glu	Gln	Leu	Gly	Glu 455		Lys	Phe	Gln	Asn 460	Ala	Leu	Leu	Val
Arg 465	Tyr	Thr	Lys	Lys	Val 470	Pro	Gln	Val	Ser	Thr 475	Pro	Thr	Leu	Val	Glu 480
Val	Ser	Arg	Asn	Leu 485	Gly	Lys	Val	Gly	Ser 490	Lys	Cys	Cys	Lys	His 495	Pro
Glu	Ala	Lys	Arg 500	Met	Pro	Cys	Ala	Glu 505	Asp	Tyr	Leu	Ser	Va1 510	Val	Leu
Asn	Gln	Leu 515	Cys	Val	Leu	His	Glu 520	Lys	Thr	Pro	Val	Ser 525	Asp	Arg	Val
Thr	Lys 530	Суѕ	Cys	Thr	Glu	Ser 535	Leu	Val	Asn	Arg	Arg 540	Pro	Cys	Phe	Ser
Ala 545	Leu	Glu	Val	Asp	Glu 550	Thr	Tyr	Val	Pro	Lys 555	Glu	Phe	Asn	Ala	Glu 560
Thr	Phe	Thr	Phe	His 565	Ala	Asp	Ile	Cys	Thr 570	Leu	Ser	Glu	Lys	Glu 575	Arg
Gln	Ile	Lys	Lys 580	Gln	Thr	Ala	Leu	Val 585	Glu	Leu	Val	Lys	His 590	Lys	Pro
Lys	Ala	Thr 595	Lys	Glu	Gln	Leu	Lys 600	Ala	Val	Met	Asp	Asp 605	Phe	Ala	Ala
Phe	Val 610	Glu	Lys	Cys	Cys	Lys 615	Ala	Asp	Asp	Lys	Glu 620	Thr	Cys	Phe	Ala
Glu	G1n	Glv	Laze	Laze	Len	Va1	Δla	Δla	Ser	Gln	Δ1 =	αlα	T.011	G137	T. 611

<210> 1604

<211> 794

<212> PRT

<213> Homo sapiens

<400> 1604

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ala Gly Val

Ser Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu 20 25 30

Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr 35 40 45

Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val
50 60

Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys 65 70 75 80

Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala 85 90 95

Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln 100 105 110

Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro 115 120 125

Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala 130 135 140

Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile 145 150 155 160

Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala 165 170 175

Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys 180 185 190

Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys
195 200 205

Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe 210 215 220

Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg 225 230 235 240

Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu 245 250 255

Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala 260 265 270

Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser 275 280 285

Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys 295 Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu 310 Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn 330 Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr 345 Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala 360 Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu 405 410 Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys 425 Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met 455 Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr 490 Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp 505 Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys 565 570 Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu Phe Pro Thr Ile Pro Leu Ser Arg Leu Phe Asp Asn Ala Met Leu Arg Ala His Arg Leu His 615 620

Gln Leu Ala Phe Asp Thr Tyr Gln Glu Phe Glu Glu Ala Tyr Ile Pro 625 630 635 640

Lys Glu Gln Lys Tyr Ser Phe Leu Gln Asn Pro Gln Thr Ser Leu Cys 645 650 655

Phe Ser Glu Ser Ile Pro Thr Pro Ser Asn Arg Glu Glu Thr Gln Gln 660 665 670

Lys Ser Asn Leu Glu Leu Leu Arg Ile Ser Leu Leu Leu Ile Gln Ser 675 680 685

Trp Leu Glu Pro Val Gln Phe Leu Arg Ser Val Phe Ala Asn Ser Leu 690 695 700

Val Tyr Gly Ala Ser Asp Ser Asn Val Tyr Asp Leu Leu Lys Asp Leu 705 710 715 720

Glu Glu Gly Ile Gln Thr Leu Met Gly Arg Leu Glu Asp Gly Ser Pro $725 \hspace{1.5cm} 730 \hspace{1.5cm} 735$

Arg Thr Gly Gln Ile Phe Lys Gln Thr Tyr Ser Lys Phe Asp Thr Asn 740 $$ 745 $$ 750

Ser His Asn Asp Asp Ala Leu Leu Lys Asn Tyr Gly Leu Leu Tyr Cys 755 760 765

Phe Arg Lys Asp Met Asp Lys Val Glu Thr Phe Leu Arg Ile Val Gln 770 780

Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

<210> 1605

<211> 719

<212> PRT

<213> Homo sapiens

<400> 1605

Met Lys Leu Lys Thr Val Arg Ser Ala Val Leu Ser Ser Leu Phe Ala 1 5 10 15

Ser Gln Val Leu Gly Gln Pro Ile Asp Asp Thr Glu Ser Gln Thr Thr 20 25 30

Ser Val Asn Leu Met Ala Asp Asp Thr Glu Ser Ala Phe Ala Thr Glu 35 40 45

Thr Asn Ser Gly Gly Leu Asp Val Val Gly Leu Ile Ser Met Ala Lys 50 55 60

Arg Glu Glu Gly Glu Pro Lys Phe Val Asn Gln His Leu Cys Gly Ser 65 70 75 80

His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe
85 90 95

Tyr Thr Pro Lys Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln
100 . 105 110

Thr Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln

	115					120					125			
	lu Asn 30	Tyr	Cys	Asn	Asp 135	Ala	His	Lys	Ser	Glu 140	Val	Ala	His	Arg
Phe Ly 145	ys Asp	Leu	Gly	Glu 150	Glu	Asn	Phe	Lys	Ala 155	Leu	Val	Leu	Ile	Ala 160
Phe Al	la Gln	Tyr	Leu 165	Gln	Gln	Суѕ	Pro	Phe 170	Glu	Asp	His	Val	Lys 175	Leu
Val As	sn Glu	Val 180	Thr	Glu	Phe	Ala	Lys 185	Thr	Cys	Val	Ala	Asp 190	Glu	Ser
Ala Gl	lu Asn 195	Суѕ	Asp	Lys	Ser	Leu 200	His	Thr	Leu	Phe	Gly 205	Asp	Lys	Leu
_	hr Val 10	Ala	Thr	Leu	Arg 215	Glu	Thr	Tyr	Gly	Glu 220	Met	Ala	Asp	Cys
Cys Al 225	la Lys	Gln	Glu	Pro 230	Glu	Arg	Asn	Glu	Cys 235	Phe	Leu	Gln	His	Lys 240
Asp As	sp Asn	Pro	Asn 245	Leu	Pro	Arg	Leu	Val 250	Arg	Pro	Glu	Val	Asp 255	Val
Met Cy	ys Thr	Ala 260	Phe	His	Asp	Asn	Glu 265	Glu	Thr	Phe	Leu	Lys 270	Lys	Tyr
Leu Ty	yr Glu 275	Ile	Ala	Arg	Arg	His 280	Pro	Tyr	Phe	Tyr	Ala 285	Pro	Glu	Leu
	he Phe 90	Ala	Lys	Arg	Tyr 295	Lys	Ala	Ala	Phe	Thr 300	Glu	Cys	Суѕ	Gln
Ala Al 305	la Asp	Lys	Ala	Ala 310	Cys	Leu	Leu	Pro	Lys 315	Leu	Asp	Glu	Leu	Arg 320
Asp G	lu Gly	Lys	Ala 325	Ser	Ser	Ala	Lys	Gln 330	Arg	Leu	Lys	Cys	Ala 335	Ser
Leu G	ln Lys	Phe 340	Gly	Glu	Arg	Ala	Phe 345	Lys	Ala	Trp	Ala	Val 350	Ala	Arg
Leu Se	er Gln 355	Arg	Phe	Pro	Lys	Ala 360	Glu	Phe	Ala	Glu	Val 365	Ser	Lys	Leu
	hr Asp 70	Leu	Thr	Lys	Val 375	His	Thr	Glu	Cys	Cys 380	His	Gly	Asp	Leu
Leu G 385	lu Cys	Ala	Asp	Asp 390	Arg	Ala	Asp	Leu	Ala 395	Lys	Tyr	Ile	Cys	Glu 400
Asn G	ln Asp	Ser	Ile 405	Ser	Ser	Lys	Leu	Lys 410	Glu	Cys	Cys	Glu	Lys 415	Pro
Leu Le	eu Glu	Lys 420	Ser	His	Cys	Ile	Ala 425	Glu	Val	Glu	Asn	Asp 430	Glu	Met

Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp 435 440 445

Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe

Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 470 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala 490 Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn 585 Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala 615 Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln 650 Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 695 Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1606

<211> 671

<212> PRT

<213> Homo sapiens

<400> 1606

Met Lys Leu Ala Tyr Ser Leu Leu Leu Pro Leu Ala Gly Val Ser Ala 1 5 10 15

Ser Val Ile Asn Tyr Lys Arg Phe Val Asn Gln His Leu Cys Gly Ser 20 25 30 His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu 120 Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser 135 Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu 150 155 Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val 195 200 205 Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln 250 Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser 280 Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg 295 Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu 310 Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro 360

Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp 390 395 Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe 410 Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 425 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg 485 490 Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn 535 Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr 580 585 Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys 615 Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 645 650 Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1607

<211> 664

<212> PRT

<213> Homo sapiens

<400> 1607 Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys Ile Ser Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu 90 Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser 135 Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu 170 Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp 200 Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg 215 His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr. Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys 250 Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys 295

Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val

His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg 325 Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser 345 Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr 425 Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln 455 Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr 470 475 Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val 500 505 Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala 520 Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu 550 Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile 585 Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala 635 Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala 645 650

Ala Ser Gln Ala Ala Leu Gly Leu 660

<210> 1608 <211> 664 <212> PRT <213> Homo sapiens
<400> 1608 Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 1 5 10 15
Ile Ser Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr 20 25 30
Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly 35 40 45
Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 50 55 60
Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp 65 70 75 80
Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu 85 90 95
Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln 100 105 110
Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe 115 120 125
Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser 130 135 140
Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg 145 150 155 160
Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu 165 170 175
Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro 180 185 190
Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp 195 200 205
Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg 210 215 220
His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr 225 230 235 240
Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys 245 250 255
Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser 260 265 270
Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg

Ala	Phe 290	Lys	Ala	Trp	Ala	Val 295	Ala	Arg	Leu	Ser	Gln 300	Arg	Phe	Pro	Lys
Ala 305	Glu	Phe	Ala	Glu	Val 310	Ser	Lys	Leu	Val	Thr 315	qaA	Leu	Thr	Lys	Val 320
His	Thr	Glu	Cys	Cys 325	His	Gly	Asp	Leu	Leu 330	Glu	Cys	Ala	Asp	Asp 335	Arg
Ala	Asp	Leu	Ala 340	Lys	Tyr	Ile	Cys	Glu 345	Asn	Gln	Asp	Ser	Ile 350	Ser	Ser
Lys	Leu	Lys 355	Glu	Cys	Cys	Glu	Lys 360	Pro	Leu	Leu	Glu	Lys 365	Ser	His	Cys
Ile	Ala 370	Glu	Val	Glu	Asn	Asp 375	Glu	Met	Pro	Ala	Asp 380	Leu	Pro	Ser	Leu
Ala 385	Ala	Asp	Phe	Val	Glu 390	Ser	Lys	Asp	Val	Cys 395	Lys	Asn	Tyr	Ala	Glu 400
Ala	Lys	Asp	Val	Phe 405	Leu	Gly	Met	Phe	Leu 410	Tyr	Glu	Tyr	Ala	Arg 415	Arg
His	Pro	Asp	Tyr 420	Ser	Val	Val	Leu	Leu 425	Leu	Arg	Leu	Ala	Lys 430	Thr	Tyr
Glu	Thr	Thr 435	Leu	Glu	Lys	Cys	Cys 440	Ala	Ala	Ala	Asp	Pro 445	His	Glu	Cys
Tyr	Ala 450	Lys	Val	Phe	Asp	Glu 455	Phe	Lys	Pro	Leu	Val 460	Glu	Glu	Pro	Gln
Asn 465	Leu	Ile	Lys	Gln	Asn 470	Cys	Glu	Leu	Phe	Glu 475	Gln	Leu	Gly	Glu	Tyr 480
Lys	Phe	Gln	Asn	Ala 485	Leu	Leu	Val	Arg	Tyr 490	Thr	Lys	Lys	Val	Pro 495	Gln
Val	Ser	Thr	Pro 500	Thr	Leu	Val	Glu	Val 505	Ser	Arg	Asn	Leu	Gly 510	Lys	Val
Gly	Ser	Lys 515	Cys	Cys	Lys	His	Pro 520	Glu	Ala	Lys	Arg	Met 525	Pro	Cys	Ala
Glu	Asp 530	Tyr	Leu	Ser	Val	Val 535	Leu	Asn	Gln	Leu	Cys 540	Val	Leu	His	Glu
Lys 5 4 5	Thr	Pro	Val	Ser	Asp 550	Arg	Val	Thr	Lys	Cys 555	Cys	Thr	Glu	Ser	Leu 560
Val	Asn	Arg	Arg	Pro 565	Cys	Phe	Ser	Ala	Leu 570	Glu	Val	Asp	Glu	Thr 575	Tyr

Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile

Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu 595 600 605

Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys

Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala 625 630 635 640

Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala 645 650 655

Ala Ser Gln Ala Ala Leu Gly Leu 660

<210> 1609

<211> 663

<212> PRT

<213> Homo sapiens

<400> 1609

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg \$35\$

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly 50 60

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala
65 70 75 80

His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn 85 90 95

Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys 100 105 110

Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala 115 120 125

Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu 130 135 140

His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu 145 150 155 160

Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg 165 170 175

Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro Asn Leu Pro Arg 180 185 190

Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn 195 200 205

Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His 210 220

Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys 225 230 235 240

Ala	Ala	Phe	Thr	Glu 245	Cys	Cys	Gln	Ala	Ala 250	Asp	Lys	Ala	Ala	Cys 255	Leu
Leu	Pro	Lys	Leu 260	Asp	Glu	Leu	Arg	Asp 265	Glu	Gly	Lys	Ala	Ser 270	Ser	Ala
Lys	Gln	Arg 275	Leu	Lys	Cys	Ala	Ser 280	Leu	Gln	Lys	Phe	Gly 285	Glu	Arg	Ala
Phe	Lys 290	Ala	Trp	Ala	Val	Ala 295	Arg	Leu	Ser	Gln	Arg 300	Phe	Pro	Lys	Ala
Glu 305	Phe	Ala	Glu	Val	Ser 310	Lys	Leu	Val	Thr	Asp 315	Leu	Thr	Lys	Val	His 320
Thr	Glu	Cys	Cys	His 325	Gly	Asp	Leu	Leu	Glu 330	Cys	Ala	Asp	Asp	Arg 335	Ala
Asp	Leu	Ala	Lys 340	Tyr	Ile	Суѕ	Glu	Asn 345	Gln	Asp	Ser	Ile	Ser 350	Ser	Lys
Leu	Lys	Glu 355	Cys	Cys	Glu	Lys	Pro 360	Leu	Leu	Glu	Lys	Ser 365	His	Cys	Ile
Ala	Glu 370	Val	Glu	Asn	Asp	Glu 375	Met	Pro	Ala	Asp	Leu 380	Pro	Ser	Leu	Ala
Ala 385	Asp	Phe	Val	Glu	Ser 390	Lys	Asp	Val	Cys	Lys 395	Asn	Tyr	Ala	Glu	Ala 400
Lys	Asp	Val	Phe	Leu 405	Gly	Met	Phe	Leu	Tyr 410	Glu	Tyr	Ala	Arg	Arg 415	His
Pro	Asp	Tyr	Ser 420	Val	Val	Leu	Leu	Leu 425	Arg	Leu	Ala	Lys	Thr 430	Tyr	Glu
Thr	Thr	Leu 435	Glu	Lys	Cys	Cys	Ala 440	Ala	Ala	Asp	Pro	His 445	Glu	Суѕ	Tyr
Ala	Lys 450	Val	Phe	Asp	Glu	Phe 455	Lys	Pro	Leu	Val	Glu 460	Glu	Pro	Gln	Asn
Leu 465	Ile	Lys	Gln	Asn	Cys 470	Glu	Leu	Phe	Glu	Gln 475	Leu	Gly	Glu	Tyr	Lys 480
			Ala	485				_	490	_	_			495	
Ser	Thr	Pro	Thr 500	Leu	Val	Glu	Val	Ser 505	Arg	Asn	Leu	Gly	Lys 510	Val	Gly
Ser	Lys	Cys 515	Cys	Lys	His	Pro	G1u 520	Ala	Lys	Arg	Met	Pro 525	Cys	Ala	Glu
Asp	Туr 530	Leu	Ser	Val	Va1	Leu 535	Asn	Gln	Leu	Cys	Val 540	Leu	His	Glu	Lys
Thr 545	Pro	Val	Ser	Asp	Arg 550	Val	Thr	Lys	Cys	Суs 555	Thr	Glu	Ser	Leu	Val 560
Asn	Arg	Arg	Pro	Суз 565	Phe	Ser	Ala	Leu	Glu 570	Val	Asp	Glu	Thr	Tyr 575	Val

Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys 580 585 590

Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val595 600 605

Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala 610 620

Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp 625 630 635 640

Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala 645 650 655

Ser Gln Ala Ala Leu Gly Leu 660

<210> 1610

<211> 663

<212> PRT

<213> Homo sapiens

<400> 1610

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu 20 25 30

Glu Gly Gln Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg 35 40 45

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
50 55 60

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala 65 70 75 80

His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn 85 90 95

Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys 100 105 110

Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala 115 120 125

Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu

His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu 145 150 155 160

Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg 165 170 175

Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro Asn Leu Pro Arg 180 185 190 Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn 200 Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala 295 Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys 345 Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala 375 Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala 390 Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu 425 Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val 490 Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly 505 Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu 520

Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys 530 540

Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val 545 550 560

Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val 565 570 575

Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys 580 585 590

Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val 595 600 605

Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala 610 615 620

Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp 625 630 635 640

Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala 645 650 655

Ser Gln Ala Ala Leu Gly Leu 660

<210> 1611

<211> 688

<212> PRT

<213> Homo sapiens

<400> 1611

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160 Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 170 Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 215 Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 250 Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 275 280 285 Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 325 330 Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Lys Thr Thr Leu Glu Lys Cys 375 Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val 440 Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 485 490

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 505 Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 555 Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 585 Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu Asn Gln Arg Ala His Gly Gln Asp Leu Gly Thr Leu Gly Ser Cys 615 Leu Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Tyr Trp Leu Ser Thr Pro Ala Leu Met Pro Met Asn Met Ala Pro Ile Thr Gly Arg Ala Leu 660 665

<210> 1612

<211> 688

<212> PRT

<213> Homo sapiens

<400> 1612

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Glu Pro Tyr Ile Ser Arg Cys Thr Val Cys Glu Gly Pro Ala Ile Ala 675 680 685

Tyr Ser Arg Ser Leu Asp Lys Arg Asn Gln Arg Ala His Gly Gln Asp
20 25 30

Leu Gly Thr Leu Gly Ser Cys Leu Gln Arg Phe Thr Thr Met Pro Phe

Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe Ala Ser Arg Asn Asp 50 55 60

Tyr Ser Tyr Trp Leu Ser Thr Pro Ala Leu Met Pro Met Asn Met Ala 65 70 75 80

Pro Ile Thr Gly Arg Ala Leu Glu Pro Tyr Ile Ser Arg Cys Thr Val 85 90 95

Cys Glu Gly Pro Ala Ile Ala Asp Ala His Lys Ser Glu Val Ala His

Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile 120 Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys 135 Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp 185 Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp 215 Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu 245 250 Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala 295 Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp 345 Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met 425

Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu

Leu Leu Arg Leu Ala Lys Thr Tyr Lys Thr Thr Leu Glu Lys Cys 455 Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser 585 Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro 635 Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1613

<211> 747

<212> PRT

<213> Homo sapiens

<400> 1613

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

680

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

685

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 135 Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 200 Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 230 Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 250 Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 280 Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val 360 365 Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys

Cys A 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Cys	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe L	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu L	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val A	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu V 4	/al 150	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Суѕ	Cys	Lys	His
Pro G 465	Slu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu A	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val T	Thr	Lys	Суs 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser A	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu T	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg G 545	3ln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560
Pro I	ys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala F	?he	Val	Glu 580	Lys	Cys	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala G	31u	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly
Leu A	Asp 510	Gly	Pro	Phe	Pro	Gln 615	Asp	Glu	Lys	Leu	Lys 620	Asp	Ala	Phe	Ser
His V 625	/al	Val	Glu	Asn	Thr 630	Ala	Phe	Phe	Gly	Asp 635	Val	Val	Leu	Arg	Phe 640
Pro A	Arg	Ile	Val	His 645	Tyr	Tyr	Phe	Asp	His 650	Asn	Ser	Asn	Trp	Asn 655	Leu
Leu I	[le	Arg	Trp 660	Gly	Ile	Ser	Phe	Cys 665	Asn	Gln	Thr	Gly	Val 670	Phe	Asn
Gln G	Gly	Pro 675	His	Ser	Pro	Ile	Leu 680	Ser	Leu	Met	Ala	Gln 685	Glu	Leu	Gly
Ile S	Ser 590	Glu	Lys	Asp	Ser	Asn 695	Phe	Gln	Asn	Pro	Phe 700	Lys	Ile	Asp	Arg
Thr 6	Glu	Phe	Ile	Pro	Ser 710	Thr	Asp	Pro	Phe	Gln 715	Lys	Ala	Leu	Arg	Glu 720

Glu Glu Lys Arg Arg Lys Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys 725 730 735

Gly Pro Arg Ile Ser Arg Ser Gln Ser Glu Leu 740 745

<210> 1614

<211> 819

<212> PRT

<213> Homo sapiens

<400> 1614

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 215 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240

Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 255

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly

Asp	Leu	Leu 275	Glu	Cys	Ala	Asp	Asp 280	Arg	Ala	Asp	Leu	Ala 285	Lys	Tyr	Ile
Cys	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu 355	Tyr	Glu	Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Туг 365	Ser	Val	Val
Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Cys 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Cys	Tyr	Ala 395	Lys	Val	Phe	qaA	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Туг 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Cys 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly

Leu Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu Glu Ile 610 620

Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu Ala Leu 625 630 635 640

Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys Ile Leu 645 650 655

Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser Arg Thr 660 665 670

Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro Gln Asp 675 680 685

Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr Ala Phe 690 700

Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr Tyr Phe 705 710 715 720

Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile Ser Phe 725 730 735

Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro Ile Leu 740 745 750

Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser Asn Phe 755 760 765

Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser Thr Asp
770 780

Pro Phe Gln Lys Ala Leu Arg Glu Glu Lys Arg Arg Lys Lys Glu 785 790 795 800

Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg Ser Gln 805 810 815

Ser Glu Leu

<210> 1615

<211> 747

<212> PRT

<213> Homo sapiens

<400> 1615

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 50 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240

Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 255

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 275 280 285

Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 290 295 300

Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp 305 310 315 320

Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 325 330 335

Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly 340 345 350

Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val 355 360 365

Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys 370 375 380

Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu 385 390 395 400

Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys

Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Суѕ	Ala	Glu	Asp 475	Tyr	Leu	Ser	Va1	Val 480
Leu	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Cys 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Va1	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560
Pro	Lys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala	Phe	Val	Glu 580	Lys	Cys	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala	Glu	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly
Leu	Asp 610	Gly	Pro	Phe	Pro	Gln 615	Asp	Glu	Lys	Leu	Lys 620	Asp	Ala	Phe	Ser
His 625	Val	Val	Glu	Asn	Thr 630	Ala	Phe	Phe	Gly	Asp 635	Val	Val	Leu	Arg	Phe 640
Pro	Arg	Ile	Val	His 645	Tyr	Tyr	Phe	Asp	His 650	Asn	Ser	Asn	Trp	Asn 655	Leu
Leu	Ile	Arg	Trp 660	Gly	Ile	Ser	Phe	Cys 665	Asn	Gln	Thr	Gly	Val 670	Phe	Asn
Gln	Gly	Pro 675	His	Ser	Pro	Ile	Leu 680	Ser	Leu	Met	Ala	Gln 685	Glu	Leu	Gly
Ile	Ser 690	Glu	Lys	Asp	Ser	Asn 695	Phe	Gln	Asn	Pro	Phe 700	Lys	Ile	Asp	Arg
Thr 705	Glu	Phe	Ile	Pro	Ser 710	Thr	Asp	Pro	Phe	Gln 715	Lys	Ala	Leu	Arg	Glu 720
Glu	Glu	Lys	Arg	Arg 725	Lys	Lys	Glu	Glu	Lys 730	Arg	Lys	Glu	Ile	Arg 735	Lys
Glv	Pro	Arq	Ile	Ser	Arq	Ser	Gln	Ser	Glu	Leu					

740 745

<210> 1616 <211> 819

<212> PRT

<213> Homo sapiens

<400> 1616

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240

Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 255

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 275 280 285

Cys	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu 355	Tyr	Glu	Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Туr 365	Ser	Val	Val
Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Суs 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Cys	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Суѕ	Суѕ	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Суѕ	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Суs 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Суѕ	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	G1u 555	Leu	Val	Lys	His	Lys 560
Pro	Lys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala	Phe	Val	Glu 580	Lys	Cys	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala	Glu	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly
Leu	Ala 610	Thr	Gly	Thr	Leu	Arg 615	Thr	Ser	Leu	Asp	Pro 620	Ser	Leu	Glu	Ile

Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu Ala Leu 630 Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys Ile Leu 645 650 Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser Arg Thr 665 Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro Gln Asp 680 Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr Ala Phe 695 Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr Tyr Phe 710 Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile Ser Phe 730 Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro Ile Leu 740 745 Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys Lys Glu 790 795 Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg Ser Gln 810

Ser Glu Leu

<210> 1617

<211> 753

<212> PRT

<213> Homo sapiens

<400> 1617

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 105 Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 120 His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 135 Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 235 Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 280 Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 330 Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly 345 Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu 390 395 Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys 405 410

Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 550 Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 570 Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 600 Leu Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg Ser Ala Phe 615 Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp Gly Ser Thr 650 Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe Lys Lys Asp 680 Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn Asn Val Asp 695 Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu Tyr Ala Asp 730 Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His Asp Thr

- <210> 1618
- <211> 753
- <212> PRT
- <213> Homo sapiens

<400> 1618

- Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15
- Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30
- His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40
- Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60 \hspace{1.5cm}$
- Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80
- Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95
- Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110
- Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125
- His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140
- Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys
- Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
- Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190
- Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205
- Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 220
- Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240
- Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 255
- Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 260 265 270
- Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile

		275					280					285			
Cys	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu 355	Tyr	Glu	Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Tyr 365	Ser	Val	Val
Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Суѕ
Cys 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Суѕ	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Туг 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Туг 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Суs 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 5 1 5	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560
Pro	Lys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala	Phe	Val	Glu 580	Lys	Cys	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala	Glu	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly

Leu Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg Ser Ala Phe

610 615 620

Ser Val Gly Leu Glu Thr Asn Val Thr Ile Pro Asn Met Pro Ile Arg 640

Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp Gly Ser Thr 645

Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe Ala Tyr His 660

Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe Lys Lys Asp 680

Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn Asn Val Asp 690

Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly Asp Gln Val 705 710 715 720

Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu Tyr Ala Asp 725 730 735

Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His Asp Thr 740 745 750

Asn

<210> 1619 <211> 836

<211> 836 <212> PRT

<213> Homo sapiens

<400> 1619

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140

Asp 145	Val	Met	Cys	Thr	Ala 150	Phe	His	Asp	Asn	Glu 155	Glu	Thr	Phe	Leu	Lys 160
Lys	Tyr	Leu	Tyr	Glu 165	Ile	Ala	Arg	Arg	His 170	Pro	Tyr	Phe	Tyr	Ala 175	Pro
Glu	Leu	Leu	Phe 180	Phe	Ala	Lys	Arg	Туг 185	Lys	Ala	Ala	Phe	Thr 190	Glu	Cys
Суѕ	Gln	Ala 195	Ala	Asp	Lys	Ala	Ala 200	Cys	Leu	Leu	Pro	Lys 205	Leu	Asp	Glu
Leu	Arg 210	Asp	Glu	Gly	Lys	Ala 215	Ser	Ser	Ala	Lys	Gln 220	Arg	Leu	Lys	Cys
Ala 225	Ser	Leu	Gln	Lys	Phe 230	Gly	Glu	Arg	Ala	Phe 235	Lys	Ala	Trp	Ala	Val 240
Ala	Arg	Leu	Ser	Gln 245	Arg	Phe	Pro	Lys	Ala 250	Glu	Phe	Ala	Glu	Val 255	Ser
Lys	Leu	Val	Thr 260	Asp	Leu	Thr	Lys	Val 265	His	Thr	Glu	Суѕ	Cys 270	His	Gly
Asp	Leu	Leu 275	Glu	Cys	Ala	Asp	Asp 280	Arg	Ala	Asp	Leu	Ala 285	Lys	Tyr	Ile
Суѕ	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu 355	Tyr	Glu	Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Туr 365	Ser	Val	Val
Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Cys 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Суѕ	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 490 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 535 Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 585 Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 600 605 Leu Gln Glu Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro 615 Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu 645 650 Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile 665 Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg 695 Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp 730 Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe 745 Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu 805 810

Tyr Ala Asp Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr 820 825 830

His Asp Thr Asn 835

<210> 1620

<211> 700

<212> PRT

<213> Homo sapiens

<400> 1620

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 5 10 15

Ile Ser Ala Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr
20 25 30

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn 35 40 45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His 50 60

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp Met Lys Glu Asn His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser 85 90 95

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp 115 120 125

Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln 130 135 140

Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu 145 150 155 160

Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn 165 170 175

Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val

Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys 195 200 205

Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn 210 215 220

Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr 225 230 235 240

Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu 245 250 255

Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp 280 Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly 295 Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln 330 Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp 345 Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp 410 Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu 455 Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val 490 Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys 520 Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn 535 Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys 565 570 Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys 585

Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val 595 600 605

Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe 610 615 620

His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys 625 630 635 640

Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys 645 650 655

Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys 660 665 670

Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys 675 680 685

Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 690 695 700

<210> 1621

<211> 668

<212> PRT

<213> Homo sapiens

<400> 1621

Met Lys Leu Ala Tyr Ser Leu Leu Leu Pro Leu Ala Gly Val Ser Ala 1 5 10 15

Ser Val Ile Asn Tyr Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp 20 25 30

Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Val Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser 50 60

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 65 70 75 80

Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp 85 90 95

Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln
100 105 110

Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu

Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn 130 135 140

Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val 145 150 155 160

Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys 165 170 175

Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn

Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr 200 Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu 215 Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly 265 Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp 310 315 Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys 395 Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu 410 Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln 470 Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg 515 520 525

Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys 530 535 540

Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys 545 550 555 560

Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val 565 570 575

Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 580 585 590

His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys 595 600 605

Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys 610 620

Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys 625 630 635 640

Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys 645 650 655

Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 660 665

<210> 1622

<211> 730

<212> PRT

<213> Homo sapiens

<400> 1622

Met Arg Phe Pro Ser Ile Phe Thr Ala Val Leu Phe Ala Ala Ser Ser 1 5 10 15

Ala Leu Ala Ala Pro Val Asn Thr Thr Thr Glu Asp Glu Thr Ala Gln
20 25 30

Ile Pro Ala Glu Ala Val Ile Gly Tyr Ser Asp Leu Glu Gly Asp Phe 35 40 45

Asp Val Ala Val Leu Pro Phe Ser Asn Ser Thr Asn Asn Gly Leu Leu 50 55 60

Phe Ile Asn Thr Thr Ile Ala Ser Ile Ala Ala Lys Glu Glu Gly Val 65 70 75 80

Ser Leu Asp Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser 85 90 95

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 100 105 110

Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr 115 120 125

Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
130 135 140

Arg Asp Al 145	a His Ly	s Ser G 150	lu Val	Ala	His	Arg 155	Phe	Lys	Asp	Leu	Gly 160
Glu Glu As	n Phe Lys		eu Val	Leu	Ile 170	Ala	Phe	Ala	Gln	Tyr 175	Leu
Gln Gln Cy	s Pro Pho 180	e Glu A	sp His	Val 185	Lys	Leu	Val	Asn	Glu 190	Val	Thr
Glu Phe Al 19	_	c Cys V	al Ala 200	Asp	Glu	Ser	Ala	Glu 205	Asn	Cys	Asp
Lys Ser Le 210	u His Th		he Gly 15	Asp	Lys	Leu	Cys 220	Thr	Val	Ala	Thr
Leu Arg Gl 225	u Thr Ty:	c Gly G 230	lu Met	Ala	qzA	Cys 235	Cys	Ala	Lys	Gln	Glu 240
Pro Glu Ar	g Asn Gla 24	_	he Leu	Gln	His 250	Lys	Asp	Asp	Asn	Pro 255	Asn
Leu Pro Ar	g Leu Vai 260	l Arg P	ro Glu	Val 265	qaA	Val	Met	Cys	Thr 270	Ala	Phe
His Asp As 27		ı Thr P	he Leu 280	Lys	Lys	Tyr	Leu	Tyr 285	Glu	Ile	Ala
Arg Arg Hi 290	s Pro Ty		yr Ala 95	Pro	Glu	Leu	Leu 300	Phe	Phe	Ala	Lys
Arg Tyr Ly 305	s Ala Ala	a Phe T 310	hr Glu	Cys	Суѕ	Gln 315	Ala	Ala	Asp	Lys	Ala 320
Ala Cys Le	u Leu Pro 32		eu Asp	Glu	Leu 330	Arg	Asp	Glu	Gly	Lys 335	Ala
Ser Ser Al	a Lys Gla	n Arg L	eu Lys	Cys 345	Ala	Ser	Leu	Gln	Lys 350	Phe	Gly
Glu Arg Al 35	_	s Ala T	rp Ala 360	Val	Ala	Arg	Leu	Ser 365	Gln	Arg	Phe
Pro Lys Al 370	a Glu Ph		lu Val 75	Ser	Lys	Leu	Va1 380	Thr	Asp	Leu	Thr
Lys Val Hi 385	s Thr Gl	1 Cys C 390	ys His	Gly	Asp	Leu 395	Leu	Glu	Суѕ	Ala	Asp 400
Asp Arg Al	a Asp Le		ys Tyr	Ile	Cys 410	Glu	Asn	Gln	Asp	Ser 415	Ile
Ser Ser Ly	s Leu Ly 420	s Glu C	ys Cys	Glu 425	Lys	Pro	Leu	Leu	Glu 430	Lys	Ser
His Cys Il 43		ı Val G	lu Asn 440	Asp	Glu	Met	Pro	Ala 445	Asp	Leu	Pro
Ser Leu Al 450	a Ala As		al Glu 55	Ser	Lys	Asp	Va1 460	Cys	Lys	Asn	Tyr
Ala Glu Al 465	a Lys As	9 Val P 470	he Leu	Gly	Met	Phe 475	Leu	Tyr	Glu	Tyr	Ala 480

Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys 490 Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly 535 Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val 550 Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly 570 Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro 585 Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu 595 600 His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala 645 650 Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr 665 Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys 695 Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu

<210> 1623

<211> 662

<212> PRT

<213> Homo sapiens

Val Ala Ala Ser Gln Ala Ala Leu Gly Leu
725 730

<400> 1623

Met Phe Lys Ser Val Val Tyr Ser Ile Leu Ala Ala Ser Leu Ala Asn 1 5 10 15

Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 20 25 30 Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu 185 Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 235 Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys 265 Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu 295 Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu 345 Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala 360

Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala 375 Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr 425 Thr Leu Glu Lys Cys Cys Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe 475 Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser 505 Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 520 Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn 550 555 Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 570 575 Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 585 Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 630 Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

660

<210> 1624

<211> 730

<212> PRT

<213> Homo sapiens

<400> 1624 Met Arg Phe Pro Ser Ile Phe Thr Ala Val Leu Phe Ala Ala Ser Ser Ala Leu Ala Ala Pro Val Asn Thr Thr Glu Asp Glu Thr Ala Gln 25 Ile Pro Ala Glu Ala Val Ile Gly Tyr Ser Asp Leu Glu Gly Asp Phe Asp Val Ala Val Leu Pro Phe Ser Asn Ser Thr Asn Asn Gly Leu Leu Phe Ile Asn Thr Thr Ile Ala Ser Ile Ala Ala Lys Glu Glu Gly Val Ser Leu Asp Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr 185 Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe 265 His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala 280 Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys 295

315

Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala

Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala

:	Ser	Ser	Ala	Lys 340	Gln	Arg	Leu	Lys	Cys 345	Ala	Ser	Leu	Gln	Lys 350	Phe	Gly
(Glu	Arg	Ala 355	Phe	Lys	Ala	Trp	Ala 360	Val	Ala	Arg	Leu	Ser 365	Gln	Arg	Phe
]	Pro	Lys 370	Ala	Glu	Phe	Ala	Glu 375	Val	Ser	Lys	Leu	Val 380	Thr	Asp	Leu	Thr
	Lys 385	Va1	His	Thr	Glu	Суs 390	Суѕ	His	Gly	Asp	Leu 395	Leu	Glu	Cys	Ala	Asp 400
1	Asp	Arg	Ala	Asp	Leu 405	Ala	Lys	Tyr	Ile	Cys 410	Glu	Asn	Gln	Asp	Ser 415	Ile
:	Ser	Ser	Lys	Leu 420	Lys	Glu	Суѕ	Cys	Glu 425	Lys	Pro	Leu	Leu	Glu 430	Lys	Ser
]	His	Cys	11e 435	Ala	Glu	Val	Glu	Asn 440	Asp	Glu	Met	Pro	Ala 445	Asp	Leu	Pro
:	Ser	Leu 450	Ala	Ala	Asp	Phe	Val 455	Glu	Ser	Lys	Asp	Val 460	Cys	Lys	Asn	Tyr
	Ala 465	Glu	Ala	Lys	Asp	Val 470	Phe	Leu	Gly	Met	Phe 475	Leu	Tyr	Glu	Tyr	Ala 480
i	Arg	Arg	His	Pro	Asp 485	Tyr	Ser	Val	Val	Leu 490	Leu	Leu	Arg	Leu	Ala 495	Lys
•	Thr	Tyr	Glu	Thr 500	Thr	Leu	Glu	Lys	Cys 505	Cys	Ala	Ala	Ala	Asp 510	Pro	His
(Glu	Cys	Tyr 515	Ala	Lys	Val	Phe	Asp 520	Glu	Phe	Lys	Pro	Leu 525	Val	Glu	Glu
]	Pro	Gln 530	Asn	Leu	Ile	Lys	Gln 535	Asn	Суѕ	Glu	Leu	Phe 540	Glu	Gln	Leu	Gly
	Glu 545	Tyr	Lys	Phe	Gln	Asn 550	Ala	Leu	Leu	Val	Arg 555	Tyr	Thr	Lys	Lys	Val 560
]	Pro	Gln	Val	Ser	Thr 565	Pro	Thr	Leu	Val	Glu 570	Val	Ser	Arg	Asn	Leu 575	Gly
3	Lys	Val	Gly	Ser 580	Lys	Cys	Cys	Lys	His 585	Pro	Glu	Ala	Lys	Arg 590	Met	Pro
(Cys	Ala	Glu 595	Asp	Tyr	Leu	Ser	Val 600	Val	Leu	Asn	Gln	Leu 605	Cys	Val	Leu
1	His	Glu 610	Lys	Thr	Pro	Val	Ser 615	Asp	Arg	Val	Thr	Lys 620	Суѕ	Cys	Thr	Glu
	Ser 625	Leu	Val	Asn	Arg	Arg 630	Pro	Cys	Phe	Ser	Ala 635	Leu	Glu	Val	Asp	Glu 640
•	Thr	Tyr	Va1	Pro	Lys 645	Glu	Phe	Asn	Ala	Glu 650	Thr	Phe	Thr	Phe	His 655	Ala
2	Asp	Ile	Cys	Thr	Leu	Ser	Glu	Lys	Glu	Arg	Gln	Ile	Lys	Lys	Gln	Thr

665 670

Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln 675 680 685

Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys 690 695 700

Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu 705 710 715 720

Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 725 730

<210> 1625

<211> 668

<212> PRT

<213> Homo sapiens

<400> 1625

Met Lys Leu Ala Tyr Ser Leu Leu Leu Pro Leu Ala Gly Val Ser Ala 1 5 10 15

Ser Val Ile Asn Tyr Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp 20 25 30

Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp
35 40 45

Leu Val Lys Gly Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser 50 60

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 65 70 75 80

Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp

Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln
100 105 110

Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu 115 120 125

Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn 130 135 140

Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val 145 150 155 160

Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys 165 170 175

Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn 180 185 190

Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr 195 200 205

Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu 210 215 220

Ile A l a 225	Arg	Arg	His	Pro 230	Tyr	Phe	Tyr	Ala	Pro 235	Glu	Leu	Leu	Phe	Phe 240
Ala Lys	Arg	Tyr	Lys 245	Ala	Ala	Phe	Thr	Glu 250	Cys	Cys	Gln	Ala	Ala 255	Asp
Lys Ala	Ala	Cys 260	Leu	Leu	Pro	Lys	Leu 265	Asp	Glu	Leu	Arg	Asp 270	Glu	Gly
Lys Ala	Ser 275	Ser	Ala	Lys	Gln	Arg 280	Leu	Lys	Cys	Ala	Ser 285	Leu	Gln	Lys
Phe Gly 290	Glu	Arg	Ala	Phe	Lys 295	Ala	Trp	Ala	Val	Ala 300	Arg	Leu	Ser	Gln
Arg Phe 305	Pro	Lys	Ala	Glu 310	Phe	Ala	Glu	Val	Ser 315	Lys	Leu	Val	Thr	Asp 320
Leu Thr	Lys	Val	His 325	Thr	Glu	Cys	Cys	His 330	Gly	Asp	Leu	Leu	Glu 335	Суѕ
Ala Asp	Asp	Arg 340	Ala	Asp	Leu	Ala	Lys 345	Tyr	Ile	Cys	Glu	Asn 350	Gln	Asp
Ser Ile	Ser 355	Ser	Lys	Leu	Lys	Glu 360	Cys	Cys	Glu	Lys	Pro 365	Leu	Leu	Glu
Lys Ser 370	His	Cys	Ile	Ala	Glu 375	Val	Glu	Asn	Asp	Glu 380	Met	Pro	Ala	Asp
Leu Pro 385	Ser	Leu	Ala	Ala 390	Asp	Phe	Val	Glu	Ser 395	Lys	Asp	Val	Cys	Lys 400
Asn Tyr	Ala	Glu	Ala 405	Lys	Asp	Val	Phe	Leu 410	Gly	Met	Phe	Leu	Tyr 415	Glu
Tyr Ala		420			_		425					430		
Ala Lys	Thr 435	Tyr	Glu	Thr	Thr	Leu 440	Glu	Lys	Cys	Cys	Ala 445	Ala	Ala	Asp
Pro His 450					455			_		460				
Glu Glu 465	Pro	Gln	Asn	Leu 470	Ile	Lys	Gln	Asn	Cys 475	Glu	Leu	Phe	Glu	Gln 480
Leu Gly	Glu	Tyr	Lys 485	Phe	Gln	Asn	Ala	Leu 490	Leu	Val	Arg	Tyr	Thr 495	Lys
Lys Val	Pro	Gln 500	Val	Ser	Thr	Pro	Thr 505	Leu	Val	Glu	Val	Ser 510	Arg	Asn
Leu Gly	Lys 515	Val	Gly	Ser	Lys	Cys 520	Cys	Lys	His	Pro	Glu 525	Ala	Lys	Arg
Met Pro 530	Cys	Ala	Glu	Asp	Tyr 535	Leu	Ser	Val	Val	Leu 540	Asn	Gln	Leu	Cys
Val Leu 545	His	Glu	Lys	Thr 550	Pro	Val	Ser	Asp	Arg 555	Val	Thr	Lys	Cys	Суs 560

Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val 565 570 575

Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe 580 585 590

His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys 595 600 605

Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys 610 620

Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys 625 630 635 640

Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys 645 650 655

Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 660 665

<210> 1626

<211> 662

<212> PRT

<213> Homo sapiens

<400> 1626

Met Phe Lys Ser Val Val Tyr Ser Ile Leu Ala Ala Ser Leu Ala Asn 1 5 10 15

Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 20 25 30

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His
35 40 45

Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln
50 55 60

Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Asp Ala His 65 70 75 80

Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe 85 90 95

Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 100 105 110

Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 115 120 125

Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His 130 135 140

Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr 145 150 155 160

Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn 165 170 175 Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu 185 Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro 215 Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 235 Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe 280 Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp 330 Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala 360 Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala 375 Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro 405 410 Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu 455 Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 490 Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 515 520 525

Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr 530 540

Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn 545 550 555 560

Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 565 570 575

Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 580 585 590

Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu 595 600 605

Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val 610 620

Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 625 630 635 640

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 645 650 655

Gln Ala Ala Leu Gly Leu 660

<210> 1627

<211> 640

<212> PRT

<213> Homo sapiens

<400> 1627

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val

Asp 145	Val	Met	Cys	Thr	Ala 150	Phe	His	Asp	Asn	Glu 155	Glu	Thr	Phe	Leu	Lys 160
Lys	Tyr	Leu	Tyr	Glu 165	Ile	Ala	Arg	Arg	His 170	Pro	Tyr	Phe	Tyr	Ala 175	Pro
Glu	Leu	Leu	Phe 180	Phe	Ala	Lys	Arg.	Tyr 185	Lys	Ala	Ala	Phe	Thr 190	Glu	Cys
Cys	Gln	Ala 195	Ala	Asp	Lys	Ala	Ala 200	Cys	Leu	Leu	Pro	Lys 205	Leu	Asp	Glu
Leu	Arg 210	Asp	Glu	Gly	Lys	Ala 215	Ser	Ser	Ala	Lys	Gln 220	Arg	Leu	Lys	Cys
Ala 225	Ser	Leu	Gln	Lys	Phe 230	Gly	Glu	Arg	Ala	Phe 235	Lys	Ala	Trp	Ala	Val 240
Ala	Arg	Leu	Ser	Gln 245	Arg	Phe	Pro	Lys	Ala 250	Glu	Phe	Ala	Glu	Val 255	Ser
Lys	Leu	Val	Thr 260	Asp	Leu	Thr	Lys	Val 265	His	Thr	Glu	Cys	Cys 270	His	Gly
Asp	Leu	Leu 275	Glu	Суѕ	Ala	Asp	Asp 280	Arg	Ala	Asp	Leu	Ala 285	Lys	Tyr	Ile
Cys	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu 355	Tyr	Glu	Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Tyr 365	Ser	Val	Val
Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Cys 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Суѕ	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro	Glu	Ala	Lys	Arg	Met	Pro	Cys	Ala	Glu	Asp	Tyr	Leu	Ser	Val	Val

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 485 490 495

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 500 505 510

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 530 540

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 595 600 605

Leu Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Gly 610 615 620

Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln 625 630 635 640

<210> 1628

<211> 686

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (580)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1628

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 10 15

Ile Ser Ala Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn 35 40 45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp	Met	Lys	Glu	Asn 85	Ser	Gly	Gly	Gly	Gly 90	Ser	Gly	Gly	Gly	Gly 95	Ser
Gly	Gly	Gly	Gly 100	Ser	Asp	Ala	His	Lys 105	Ser	Glu	Val	Ala	His 110	Arg	Phe
Lys	Asp	Leu 115	Gly	Glu	Glu	Asn	Phe 120	Lys	Ala	Leu	Val	Leu 125	Ile	Ala	Phe
Ala	Gln 130	Tyr	Leu	Gln	Gln	Cys 135	Pro	Phe	Glu	Asp	His 140	Val	Lys	Leu	Val
Asn 145	Glu	Val	Thr	Glu	Phe 150	Ala	Lys	Thr	Cys	Val 155	Ala	Asp	Glu	Ser	Ala 160
Glu	Asn	Суѕ	Asp	Lys 165	Ser	Leu	His	Thr	Leu 170	Phe	Gly	Asp	Lys	Leu 175	Cys
Thr	Val	Ala	Thr 180	Leu	Arg	Glu	Thr	Туг 185	Gly	Glu	Met	Ala	Asp 190	Cys	Cys
Ala	Lys	Gln 195	Glu	Pro	Glu	Arg	Asn 200	Glu	Cys	Phe	Leu	Gln 205	His	Lys	Asp
Asp	Asn 210	Pro	Asn	Leu	Pro	Arg 215	Leu	Val	Arg	Pro	Glu 220	Val	Asp	Val	Met
Cys 225	Thr	Ala	Phe	His	Asp 230	Asn	Glu	Glu	Thr	Phe 235	Leu	Lys	Lys	Tyr	Leu 240
Tyr	Glu	Ile	Ala	Arg 245	Arg	His	Pro	Туr	Phe 250	Tyr	Ala	Pro	Glu	Leu 255	Leu
Phe	Phe	Ala	Lys 260	Arg	Tyr	Lys	Ala	Ala 265	Phe	Thr	Glu	Cys	Cys 270	Gln	Ala
Ala	Asp	Lys 275	Ala	Ala	Суз	Leu	Leu 280	Pro	Lys	Leu	Asp	Glu 285	Leu	Arg	Asp
Glu	Gly 290	Lys	Ala	Ser	Ser	Ala 295	Lys	Gln	Arg	Leu	Lys 300	Cys	Ala	Ser	Leu
Gln 305	Lys	Phe	Gly	Glu	Arg 310	Ala	Phe	Lys	Ala	Trp 315	Ala	Val	Ala	Arg	Leu 320
Ser	Gln	Arg	Phe	Pro 325	Lys	Ala	Glu	Phe	Ala 330	Glu	Val	Ser	Lys	Leu 335	Val
Thr	Asp	Leu	Thr 340	Lys	Val	His	Thr	Glu 345	Cys	Cys	His	Gly	Asp 350	Leu	Leu
Glu	Сув	Ala 355	Asp	Asp	Arg	Ala	Asp 360	Leu	Ala	Lys	Tyr	11e 365	Cys	Glu	Asn
Gln	Asp 370	Ser	Ile	Ser	Ser	Lys 375	Leu	Lys	Glu	Суѕ	Cys 380	Glu	Lys	Pro	Leu
Leu 385	Glu	Lys	Ser	His	Cys 390	Ile	Ala	Glu	Val	Glu 395	Asn	Asp	Glu	Met	Pro 400
Ala	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Asp	Phe 410	Val	Glu	Ser	Lys	Asp	Val

Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu
420 425 430

Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu

Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 435 440 445

Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala 450 455 460

Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro 465 470 475 480

Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe
485 490 495

Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr 500 505 510

Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser 515 520 525

Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala 530 535 540

Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln 545 550 560

Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys 565 570 575

Cys Cys Thr Xaa Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu 580 585 590

Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 595 600 605

Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile 610 615 620

Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala 625 630 635 640

Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val 645 650 655

Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu 660 665 670

Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 675 680 685

<210> 1629

<211> 740

<212> PRT

<213> Homo sapiens

<400> 1629

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala

lis	Arg	Phe	Lys	Asp	Leu	Gly	Glu	Glu	Asn	Phe	Lys	Ala	Leu

20

25

30

Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 55 Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 105 Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 155 Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 170 Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 185 Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 250 Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 260 265 Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp 315 Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly

345

Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val

Leu	Leu 370	Leu	Arg	Leu	Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Сув 385	Ala	Ala	Ala	Asp	Pro 390	His	Glu	Cys	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe	Lys	Pro	Leu	Val 405	Glu	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu	Leu	Phe	Glu 420	Gln	Leu	Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val	Arg	Tyr 435	Thr	Lys	Lys	Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu	Val 450	Ser	Arg	Asn	Leu	Gly 455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu	Asn	Gln	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Суs 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560
Pro	Lys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala	Phe	Val	Glu 580	Lys	Суѕ	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala	Glu	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly
Leu	Val 610	Pro	Ala	Pro	Lys	Val 615	Pro	Ile	Lys	Met	Gln 620	Val	Lys	His	Trp
Pro 625	Ser	Glu	Gln	Asp	Pro 630	Glu	Lys	Ala	Trp	Gly 635	Ala	Arg	Val	Val	Glu 640
Pro	Pro	Glu	Lys	Asp 645	Asp	Gln	Leu	Val	Val 650	Leu	Phe	Pro	Val	Gln 655	Lys
Pro	Lys	Leu	Leu 660	Thr	Thr	Glu	Glu	Lys 665	Pro	Arg	Gly	Gln	Gly 670	Arg	Gly
Pro	Ile	Leu 675	Pro	Gly	Thr	Lys	Ala 680	Trp	Met	Glu	Thr	Glu 685	Asp	Thr	Leu
Gly	Arg	Va1	Leu	Ser	Pro	Glu	Pro	Asp	His	Asp	Ser	Leu	Tyr	His	Pro

690 695 700

Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met 705 710 715 720

Pro Asn His Gln Val Leu Gly Pro Glu Glu Asp Gln Asp His Ile 725 730 735

Tyr His Pro Gln 740

<210> 1630

<211> 645

<212> PRT

<213> Homo sapiens

<400> 1630

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240 Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 250 Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 280 Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 295 Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 330 Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val 360 365 Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys 405 410 Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Lys His 455 Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 490 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 595 600 605

Leu Tyr Pro Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu 610 615 620

Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val 625 630 635 640

Thr Arg Gln Arg Tyr 645

<210> 1631

<211> 643

<212> PRT

<213> Homo sapiens

<400> 1631

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala
100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg A 210	Asp Glu	Gly Lys	Ala 215	Ser	Ser	Ala	Lys	Gln 220	Arg	Leu	Lys	Cys
Ala Ser L 225	Leu Gln	Lys Phe		Glu	Arg	Ala	Phe 235	Lys	Ala	Trp	Ala	Val 240
Ala Arg L	Leu Ser	Gln Arg 245	Phe	Pro	Lys	Ala 250	Glu	Phe	Ala	Glu	Val 255	Ser
Lys Leu V	7al Thr 260	Asp Lei	Thr	Lys	Val 265	His	Thr	Glu	Cys	Cys 270	His	Gly
Asp Leu L 2	Leu Glu 275	Cys Ala	Asp	Asp 280	Arg	Ala	Asp	Leu	Ala 285	Lys	Tyr	Ile
Cys Glu A 290	Asn Gln	Asp Ser	11e 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys Pro L 305	Leu Leu	Glu Lys		His	Сув	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu Met P	Pro Ala	Asp Let 325	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys Asp V	al Cys 340	Lys Asr	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met Phe L 3	Leu Tyr 355	Glu Tyı	Ala	Arg 360	Arg	His	Pro	Asp	Туг 365	Ser	Val	Val
Leu Leu I 370	Leu Arg	Leu Ala	1 Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Cys Ala A 385	Ala Ala	Asp Pro		Glu	Суѕ	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe Lys F	Pro Leu	Val Glu 405	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys
Glu Leu F	Phe Glu 420	Gln Le	ı Gly	Glu	Tyr 425	Lys	Phe	Gln	Asn	Ala 430	Leu	Leu
Val Arg T	Tyr Thr 135	Lys L ys	: Val	Pro 440	Gln	Val	Ser	Thr	Pro 445	Thr	Leu	Val
Glu Val S 450	Ser Arg	Asn Le	455	Lys	Val	Gly	Ser	Lys 460	Cys	Cys	Lys	His
Pro Glu A 465	Ala Lys	Arg Met		Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu Asn G	Gln Leu	Cys Val 485	. Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val Thr L	Cys Cys 500	Cys Thi	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser Ala I	Leu Glu 515	Val Ası	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu Thr F 530	he Thr	Phe His	535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
595 600 605

Leu Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu 610 620

Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg 625 630 635 640

Gln Arg Tyr

<210> 1632

<211> 643

<212> PRT

<213> Homo sapiens

<400> 1632

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Ile Lys Pro Glu Ala Pro Gly Glu 20 25 30

Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His 35 40 45

Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr Asp Ala His Lys Ser Glu 50 60

Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu 65 70 75 80

Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp 85 90 95

His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val 100 105 110

Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe 115 120 125

Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu 130 135 140

Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe 145 150 155 160

Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro
165 170 175

Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe

	180			185					190		
Leu Lys Lys 195	Tyr Leu	Tyr G	lu Ile 200	Ala	Arg	Arg	His	Pro 205	Tyr	Phe	Tyr
Ala Pro Glu 210	Leu Leu		he Ala 15	Lys	Arg	Tyr	Lys 220	Ala	Ala	Phe	Thr
Glu Cys Cys 225	Gln Ala	Ala A	sp Lys	Ala	Ala	Cys 235	Leu	Leu	Pro	Lys	Leu 240
Asp Glu Leu	Arg Asp 245	Glu G	ly Lys	Ala	Ser 250	Ser	Ala	Lys	Gln	Arg 255	Leu
Lys Cys Ala	Ser Leu 260	Gln L	ys Phe	Gly 265	Glu	Arg	Ala	Phe	Lys 270	Ala	Trp
Ala Val Ala 275	Arg Leu	Ser G	ln Arg 280	Phe	Pro	Lys	Ala	Glu 285	Phe	Ala	Glu
Val Ser Lys 290	Leu Val		sp Leu 95	Thr	Lys	Val	His 300	Thr	Glu	Cys	Cys
His Gly Asp 305	Leu Leu	Glu C; 310	ys Ala	Asp	Asp	Arg 315	Ala	Asp	Leu	Ala	Lys 320
Tyr Ile Cys	Glu Asn 325	Gln A	sp Ser	Ile	Ser 330	Ser	Lys	Leu	Lys	Glu 335	Cys
Cys Glu Lys	Pro Leu 340	Leu G	lu Lys	Ser 345	His	Cys	Ile	Ala	Glu 350	Val	Glu
Asn Asp Glu 355	Met Pro	Ala A	sp Leu 360	Pro	Ser	Leu	Ala	Ala 365	Asp	Phe	Val
Glu Ser Lys 370	Asp Val		ys Asn 75	Tyr	Ala	Glu	Ala 380	Lys	Asp	Val	Phe
Leu Gly Met 385	Phe Leu	Туг G 390	lu Tyr	Ala	Arg	Arg 395	His	Pro	Asp	Tyr	Ser 400
Val Val Leu	Leu Leu 405	Arg L	eu Ala	Lys	Thr 410	Tyr	Glu	Thr	Thr	Leu 415	Glu
Lys Cys Cys	Ala Ala 420	Ala A	sp Pro	His 425	Glu	Cys	Tyr	Ala	Lys 430	Val	Phe
Asp Glu Phe 435	Lys Pro	Leu V	al Glu 440	Glu	Pro	Gln	Asn	Leu 445	Ile	Lys	Gln
Asn Cys Glu 450	Leu Phe		ln Leu 55	Gly	Glu	Tyr	Lys 460	Phe	Gln	Asn	Ala
Leu Leu Val 465	Arg Tyr	Thr L 470	ys L ys	Val	Pro	Gln 475	Val	Ser	Thr	Pro	Thr 480
Leu Val Glu	Val Ser . 485	Arg A	sn Leu	Gly	Lys 490	Val	Gly	Ser	Lys	Cys 495	Cys

Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser 500 505 510

Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser

515	520	525

Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro 530 535 540

Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe 545 550 555 560

Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu 565 570 575

Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys 580 585 590

His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp 595 600 605

Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr 610 615 620

Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala 625 630 635 640

Leu Gly Leu

<210> 1633

<211> 643

<212> PRT

<213> Homo sapiens

<400> 1633

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ile Lys Pro Glu Ala Pro Gly Glu

Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr Asp Ala His Lys Ser Glu 50 55 60

Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu 65 70 75 80

Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp 85 90 95

His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val
100 105 110

Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe 115 120 125

Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu 130 135 140

Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe 145 150 155 160

Leu Gln His Lys	S Asp Asp A	Asn Pro	Asn Leu 170	Pro Arg	Leu Val	Arg Pro	Э
Glu Val Asp Val		Thr Ala	Phe His 185	Asp Asn	Glu Glu 190	Thr Phe	9
Leu Lys Lys Ty 195	r Leu Tyr (Glu Ile 200	Ala Arg	Arg His	Pro Tyr 205	Phe Ty	r
Ala Pro Glu Lev 210		Phe Ala 215	Lys Arg	Tyr Lys 220	Ala Ala	Phe Thi	r
Glu Cys Cys Gli 225	n Ala Ala <i>A</i> 230	Asp Lys	Ala Ala	Cys Leu 235	Leu Pro	Lys Let 240	
Asp Glu Leu Arg	Asp Glu (245	Gly Lys	Ala Ser 250	Ser Ala	Lys Gln	Arg Let 255	ı
Lys Cys Ala Ser 260		Lys Phe	Gly Glu 265	Arg Ala	Phe Lys 270	Ala Tr	Ş
Ala Val Ala Arg 275	g Leu Ser (Gln Arg 280	Phe Pro	Lys Ala	Glu Phe 285	Ala Glu	ı
Val Ser Lys Let 290		Asp Leu 295	Thr Lys	Val His 300	Thr Glu	Cys Cys	5
His Gly Asp Let 305	ı Leu Glu (310	Cys Ala	Asp Asp	Arg Ala 315	Asp Leu	Ala Lys	
Tyr Ile Cys Gl	Asn Gln A	Asp Ser	Ile Ser 330	Ser Lys	Leu Lys	Glu Cys 335	3
Cys Glu Lys Pro 340		Glu Lys	Ser His 345	Cys Ile	Ala Glu 350	Val Glu	1
Asn Asp Glu Met 355	Pro Ala A	Asp Leu 360	Pro Ser	Leu Ala	Ala Asp 365	Phe Val	L
Glu Ser Lys Ası 370	_	Lys Asn 375	Tyr Ala	Glu Ala 380	Lys Asp	Val Phe	€
Leu Gly Met Pho 385	e Leu Tyr (390	Glu Tyr	Ala Arg	Arg His 395	Pro Asp	Tyr Ser	
Val Val Leu Le	Leu Arg I 405	Leu Ala	Lys Thr 410	Tyr Glu	Thr Thr	Leu Glu 415	1
Lys Cys Cys Ala 420		Asp Pro	His Glu 425	Cys Tyr	Ala Lys 430	Val Phe	3
Asp Glu Phe Lys 435	Pro Leu V	Val Glu 440	Glu Pro	Gln Asn	Leu Ile 445	Lys Glr	n
Asn Cys Glu Let 450		Gln Leu 455	Gly Glu	Tyr Lys 460	Phe Gln	Asn Ala	3
Leu Leu Val Arg 465	Tyr Thr I 470	Lys Lys	Val Pro	Gln Val 475	Ser Thr	Pro Thi	
Leu Val Glu Va	l Ser Arg A 485	Asn Leu	Gly Lys 490	Val Gly	Ser Lys	Cys Cys 495	õ

- Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser 500 505 510
- Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser 515 520 525
- Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro 530 535 540
- Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe 545 550 560
- Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu 565 570 575
- Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys 580 585 590
- His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp 595 600 605
- Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr 610 $\,$ 620 $\,$
- Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala 625 630 635 640

Leu Gly Leu

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<210> 1634
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<211> 641

<212> PRT

<213> Homo sapiens

<400> 1634

- Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15
- Tyr Ser Arg Ser Leu Asp Lys Arg Ser Pro Lys Met Val Gln Gly Ser 20 25 30
- Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$
- Gly Cys Lys Val Leu Arg Arg His Asp Ala His Lys Ser Glu Val Ala 50 55 60
- His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 65 70 75 80
- Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 85 90 95
- Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 100 105 110
- Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 115 120 125

Lys Leu C	Cys Thr	Val Ala	Thr 135	Leu	Arg	Glu	Thr	Tyr 140	Gly	G1u	Met	Ala
Asp Cys C 145	Cys Ala	Lys Gln 150	Glu	Pro	Glu	Arg	Asn 155	Glu	Cys	Phe	Leu	Gln 160
His Lys A	Asp Asp	Asn Pro 165	Asn	Leu	Pro	Arg 170	Leu	Val	Arg	Pro	Glu 175	Val
Asp Val M	Met Cys 180	Thr Ala	Phe	His	Asp 185	Asn	Glu	Glu	Thr	Phe 190	Leu	Lys
Lys Tyr L 1	eu Tyr 195	Glu Ile	Ala	Arg 200	Arg	His	Pro	Tyr	Phe 205	Tyr	Ala	Pro
Glu Leu L 210	Leu Phe	Phe Ala	Lys 215	Arg	Tyr	Lys	Ala	Ala 220	Phe	Thr	Glu	Cys
Cys Gln A 225	Ala Ala	Asp Lys 230	Ala	Ala	Cys	Leu	Leu 235	Pro	Lys	Leu	Asp	Glu 240
Leu Arg A	Asp Glu	Gly Lys 245	Ala	Ser	Ser	Ala 250	Lys	Gln	Arg	Leu	Lys 255	Cys
Ala Ser I	Leu Gln 260	Lys Phe	Gly	Glu	Arg 265	Ala	Phe	Lys	Ala	Trp 270	Ala	Val
Ala Arg I 2	Leu Ser 275	Gln Àrg	Phe	Pro 280	Lys	Ala	Glu	Phe	Ala 285	Glu	Val	Ser
Lys Leu V 290	al Thr	Asp Leu	Thr 295	Lys	Val	His	Thr	Glu 300	Cys	Cys	His	Gly
Asp Leu L 305	Leu Glu	Cys Ala 310	Asp	Asp	Arg	Ala	Asp 315	Leu	Ala	Lys	Tyr	Ile 320
Cys Glu A	Asn Gln	Asp Ser 325	Ile	Ser	Ser	Lys 330	Leu	Lys	Glu	Cys	Cys 335	Glu
Lys Pro L	Leu Leu 340	Glu Lys	Ser	His	Cys 345	Ile	Ala	Glu	Val	Glu 350	Asn	Asp
Glu Met F	Pro Ala 855	Asp Leu	Pro	Ser 360	Leu	Ala	Ala	Asp	Phe 365	Val	Glu	Ser
Lys Asp V 370	/al Cys	Lys Asn	Tyr 375	Ala	Glu	Ala	Lys	Asp 380	Val	Phe	Leu	Gly
Met Phe L 385	Leu Tyr	Glu Tyr 390	Ala	Arg	Arg	His	Pro 395	Asp	Tyr	Ser	Val	Val 400
Leu Leu I	Leu Arg	Leu Ala 405	Lys	Thr	Tyr	Glu 410	Thr	Thr	Leu	Glu	Lys 415	Cys
Cys Ala A	Ala Ala 420	Asp Pro	His	Glu	Cys 425	Tyr	Ala	Lys	Val	Phe 430	Asp	Glu
Phe Lys F 4	Pro Leu 135	Val Glu	Glu	Pro 440	Gln	Asn	Leu	Ile	Lys 445	Gln	Asn	Cys
Glu Leu P 450	Phe Glu	Gln Leu	Gly 455	Glu	Tyr	Lys	Phe	Gln 460	Asn	Ala	Leu	Leu

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val 470 475 Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 520 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 600 Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 615 Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1635

<211> 669

<212> PRT

<213> Homo sapiens

<400> 1635

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
1 5 10 15

Ile Ser Ala Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr 20 25 30

Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser 35 40 45

Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser

Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp 65 70 75 80

Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys 85 90 95

Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala

Gln	Tyr	Leu	Gln	Gln	Cys	Pro	Phe	Glu	Asp	His	Val	Lys	Leu

105

100

Val Asn 120 125 Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu 135 Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp 185 Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr 215 Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala 250 Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser 295 Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln 345 Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys 395 Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg

Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala

435 440 445

Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu 455 Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu 470 Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr 490 Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys 520 Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu 570 Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys 600 Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr 615 Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Cys Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly 650 Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1636

<211> 671

<212> PRT

<213> Homo sapiens

<400> 1636

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 1 5 10 15

Ile Ser Ala Arg Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr 20 25 30

Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr 35 40 45

Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly 50 60

His 65	Ser	Val	Cys	Thr	Asn 70	Pro	Ser	Asp	Lys	Trp 75	Val	Gln	Asp	Tyr	Ile 80
Lys	Asp	Met	Lys	Glu 85	Asn	Asp	Ala	His	Lys 90	Ser	Glu	Val	Ala	His 95	Arg
Phe	Lys	Asp	Leu 100	Gly	Glu	Glu	Asn	Phe 105	Lys	Ala	Leu	Val	Leu 110	Ile	Ala
Phe	Ala	Gln 115	Tyr	Leu	Gln	Gln	Cys 120	Pro	Phe	Glu	Asp	His 125	Val	Lys	Leu
Val	Asn 130	Glu	Val	Thr	Glu	Phe 135	Ala	Lys	Thr	Cys	Val 140	Ala	Asp	Glu	Ser
Ala 145	Glu	Asn	Cys	Asp	Lys 150	Ser	Leu	His	Thr	Leu 155	Phe	Gly	Asp	Lys	Leu 160
Cys	Thr	Val	Ala	Thr 165	Leu	Arg	Glu	Thr	Туг 170	Gly	Glu	Met	Ala	Asp 175	Cys
Cys	Ala	Lys	Gln 180	Glu	Pro	Glu	Arg	Asn 185	Glu	Суѕ	Phe	Leu	Gln 190	His	Lys
Asp	Asp	Asn 195	Pro	Asn	Leu	Pro	Arg 200	Leu	Val	Arg	Pro	Glu 205	Val	Asp	Val
Met	Cys 210	Thr	Ala	Phe	His	Asp 215	Asn	Glu	Glu	Thr	Phe 220	Leu	Lys	Lys	Tyr
Leu 225	Tyr	Glu	Ile	Ala	Arg 230	Arg	His	Pro	Tyr	Phe 235	Tyr	Ala	Pro	Glu	Leu 240
Leu	Phe	Phe	Ala	Lys 245	Arg	Tyr	Lys	Ala	Ala 250	Phe	Thr	Glu	Cys	Cys 255	Gln
Ala	Ala	Asp	Lys 260	Ala	Ala	Cys	Leu	Leu 265	Pro	Lys	Leu	Asp	Glu 270	Leu	Arg
Asp	Glu	Gly 275	Lys	Ala	Ser	Ser	Ala 280	Lys	Gln	Arg	Leu	Lys 285	Cys	Ala	Ser
Leu	Gln 290	Lys	Phe	Gly	Glu	Arg 295	Ala	Phe	Lys	Ala	Trp 300	Ala	Val	Ala	Arg
Leu 305	Ser	Gln	Arg	Phe	Pro 310	Lys	Ala	Glu	Phe	Ala 315	Glu	Val	Ser	Lys	Leu 320
Val	Thr	Asp	Leu	Thr 325	Lys	Val	His	Thr	Glu 330	Суѕ	Cys	His	Gly	Asp 335	Leu
Leu	Glu	Суѕ	Ala 340	Asp	Asp	Arg	Ala	Asp 345	Leu	Ala	Lys	Tyr	11e 350	Cys	Glu
Asn	Gln	Asp 355	Ser	Ile	Ser	Ser	Lys 360	Leu	Lys	Glu	Cys	Суs 365	Glu	Lys	Pro
Leu	Leu 370	Glu	Lys	Ser	His	Cys 375	Ile	Ala	Glu	Val	Glu 380	Asn	Asp	Glu	Met
Pro 385	Ala	Asp	Leu	Pro	Ser 390	Leu	Ala	Ala	Asp	Phe 395	Val	Glu	Ser	Lys	Asp 400

Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 425 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu 465 475 Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg 490 Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu 520 525 Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala 565 570 Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys 615 Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

<210> 1637

<211> 713

<212> PRT

<213> Homo sapiens

<400> 1637

Met Lys Leu Lys Thr Val Arg Ser Ala Val Leu Ser Ser Leu Phe Ala 1 5 10 15

Ser	Gln	Val	Leu 20	Gly	Gln	Pro	Ile	Asp 25	Asp	Thr	Glu	Ser	Gln 30	Thr	Thr
Ser	Val	Asn 35	Leu	Met	Ala	Asp	Asp 40	Thr	Glu	Ser	Ala	Phe 45	Ala	Thr	Gln
Thr	Asn 50	Ser	Gly	Gly	Leu	Asp 55	Val	Val	Gly	Leu	Ile 60	Ser	Met	Ala	Lys
Arg 65	Phe	Val	Asn	Gln	His 70	Leu	Cys	Gly	Ser	His 75	Leu	Val	Glu	Ala	Leu 80
Tyr	Leu	Val	Cys	Gly 85	Glu	Arg	Gly	Phe	Phe 90	Tyr	Thr	Pro	Lys	Thr 95	Gly
Tyr	Gly	Ser	Ser 100	Ser	Arg	Arg	Ala	Pro 105	Gln	Thr	Gly	Ile	Val 110	Glu	Gln
Cys	Cys	Thr 115	Ser	Ile	Cys	Ser	Leu 120	Tyr	Gln	Leu	Glu	Asn 125	Tyr	Cys	Asn
Asp	Ala 130	His	Lys	Ser	Glu	Val 135	Ala	His	Arg	Phe	Lys 140	Asp	Leu	Gly	Glu
Glu 145	Asn	Phe	Lys	Ala	Leu 150	Val	Leu	Ile	Ala	Phe 155	Ala	Gln	Tyr	Leu	Gln 160
Gln	Cys	Pro	Phe	Glu 165	Asp	His	Val	Lys	Leu 170	Val	Asn	Glu	Val	Thr 175	Glu
Phe	Ala	Lys	Thr 180	Cys	Val	Ala	Asp	Glu 185	Ser	Ala	Glu	Asn	Cys 190	Asp	Lys
Ser	Leu	His 195	Thr	Leu	Phe	Gly	Asp 200	Lys	Leu	Cys	Thr	Val 205	Ala	Thr	Leu
Arg	Glu 210	Thr	Tyr	Gly	Glu	Met 215	Ala	Asp	Cys	Суѕ	Ala 220	Lys	Gln	Glu	Pro
Glu 225	Arg	Asn	Glu	Cys	Phe 230	Leu	Gln	His	Lys	Asp 235	Asp	Asn	Pro	Asn	Leu 240
Pro	Arg	Leu	Val	Arg 245	Pro	Glu	Val	Asp	Val 250	Met	Cys	Thr	Ala	Phe 255	His
Asp	Asn	Glu	Glu 260	Thr	Phe	Leu	Lys	Lys 265	Tyr	Leu	Tyr	Glu	11e 270	Ala	Arg
Arg	His	Pro 275	Tyr	Phe	Tyr	Ala	Pro 280	Glu	Leu	Leu	Phe	Phe 285	Ala	Lys	Arg
Tyr	Lys 290	Ala	Ala	Phe	Thr	Glu 295	Cys	Cys	Gln	Ala	Ala 300	qzA	Lys	Ala	Ala
Cys 305	Leu	Leu	Pro	Lys	Leu 310	Asp	Glu	Leu	Arg	Asp 315	Glu	Gly	Lys	Ala	Ser 320
Ser	Ala	Lys	Gln	Arg 325	Leu	Lys	Cys	Ala	Ser 330	Leu	Gln	Lys	Phe	Gly 335	Glu
Arg	Ala	Phe	Lys 340	Ala	Trp	Ala	Val	Ala 345	Arg	Leu	Ser	Gln	Arg 350	Phe	Pro

Lys Ala	Glu 355	Phe	Ala	Glu	Val	Ser 360	Lys	Leu	Val	Thr	Asp 365	Leu	Thr	Lys
Val His		Glu	Cys	Cys	His 375	Gly	Asp	Leu	Leu	Glu 380	Cys	Ala	Asp	Asp
Arg Ala 385	Asp	Leu	Ala	Lys 390	Tyr	Ile	Cys	Glu	Asn 395	Gln	Asp	Ser	Ile	Ser 400
Ser Lys	Leu	Lys	Glu 405	Cys	Cys	Glu	Lys	Pro 410	Leu	Leu	Glu	Lys	Ser 415	His
Cys Ile	Ala	Glu 420	Val	Glu	Asn	Asp	Glu 425	Met	Pro	Ala	Asp	Leu 430	Pro	Ser
Leu Ala	Ala 435	Asp	Phe	Val	Glu	Ser 440	Lys	Asp	Val	Cys	Lys 445	Asn	Tyr	Ala
Glu Ala 450		Asp	Val	Phe	Leu 455	Gly	Met	Phe	Leu	Tyr 460	Glu	Tyr	Ala	Arg
Arg His 465	Pro	Asp	Tyr	Ser 470	Val	Val	Leu	Leu	Leu 475	Arg	Leu	Ala	Lys	Thr 480
Tyr Glu	. Thr	Thr	Leu 485	Glu	Lys	Cys	Cys	Ala 490	Ala	Ala	Asp	Pro	His 495	Glu
Cys Tyr	Ala	Lys 500	Val	Phe	Asp	Glu	Phe 505	Lys	Pro	Leu	Val	Glu 510	Glu	Pro
Gln Asn	1 Leu 515	Ile	Lys	Gln	Asn	Cys 520	Glu	Leu	Phe	Glu	Gln 525	Leu	Gly	Glu
Tyr Lys		Gln	Asn	Ala	Leu 535	Leu	Val	Arg	Tyr	Thr 540	Lys	Lys	Val	Pro
Gln Val 545	Ser	Thr	Pro	Thr 550	Leu	Val	Glu	Val	Ser 555	Arg	Asn	Leu	Gly	Lys 560
Val Gly	Ser	Lys	Cys 565	Cys	Lys	His	Pro	Glu 570	Ala	Lys	Arg	Met	Pro 575	Суѕ
Ala Glu	Asp	Tyr 580	Leu	Ser	Val	Val	Leu 585	Asn	Gln	Leu	Cys	Val 590	Leu	His
Glu Lys	595	Pro	Val	Ser	Asp	Arg 600	Val	Thr	Lys	Cys	Cys 605	Thr	Glu	Ser
Leu Val		Arg	Arg	Pro	Cys 615	Phe	Ser	Ala	Leu	Glu 620	Val	Asp	Glu	Thr
Tyr Val 625	Pro	Lys	Glu	Phe 630	Asn	Ala	Glu	Thr	Phe 635	Thr	Phe	His	Ala	Asp 640
Ile Cys	Thr	Leu	Ser 645	Glu	Lys	Glu	Arg	Gln 650	Ile	Lys	Lys	Gln	Thr 655	Ala
Leu Val	Glu	Leu 660	Val	Lys	His	Lys	Pro 665	Lys	Ala	Thr	Lys	Glu 670	Gln	Leu
Lys Ala	Val 675	Met	Asp	Asp	Phe	Ala 680	Ala	Phe	Val	Glu	Lys 685	Cys	Cys	Lys

Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val 690 695 700

Ala Ala Ser Gln Ala Ala Leu Gly Leu 705 710

<210> 1638

<211> 718

<212> PRT

<213> Homo sapiens

<400> 1638

Met Lys Leu Lys Thr Val Arg Ser Ala Val Leu Ser Ser Leu Phe Ala 1 5 10 15

Ser Gln Val Leu Gly Gln Pro Ile Asp Asp Thr Glu Ser Gln Thr Thr
20 25 30

Ser Val Asn Leu Met Ala Asp Asp Thr Glu Ser Ala Phe Ala Thr Gln 35 40

Thr Asn Ser Gly Gly Leu Asp Val Val Gly Leu Ile Ser Met Ala Glu 50 55 60

Glu Gly Glu Pro Lys Arg Phe Val Asn Gln His Leu Cys Gly Ser His 65 70 75 80

Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr 85 90 95

Thr Pro Lys Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr 100 105 110

Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu 115 120 125

Glu Asn Tyr Cys Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe 130 135 140

Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe 145 150 155 160

Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val 165 170 175

Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala 180 185 190

Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys 195 200 205

Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys 210 215 220

Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp 225 230 235 240

Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met
245 250 255

Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu

			260					265					270		
Tyr	Glu	Ile 275	Ala	Arg	Arg	His	Pro 280	Tyr	Phe	Tyr	Ala	Pro 285	Glu	Leu	Leu
Phe	Phe 290	Ala	Lys	Arg	Tyr	Lys 295	Ala	Ala	Phe	Thr	Glu 300	Cys	Cys	Gln	Ala
Ala 305	Asp	Lys	Ala	Ala	Cys 310	Leu	Leu	Pro	Lys	Leu 315	Asp	Glu	Leu	Arg	Asp 320
Glu	Gly	Lys	Ala	Ser 325	Ser	Ala	Lys	Gln	Arg 330	Leu	Lys	Cys	Ala	Ser 335	Leu
Gln	Lys	Phe	Gly 340	Glu	Arg	Ala	Phe	Lys 345	Ala	Trp	Ala	Val	Ala 350	Arg	Leu
Ser	Gln	Arg 355	Phe	Pro	Lys	Ala	Glu 360	Phe	Ala	Glu	Val	Ser 365	Lys	Leu	Val
Thr	Asp 370	Leu	Thr	Lys	Val	His 375	Thr	Glu	Cys	Cys	His 380	Gly	Asp	Leu	Leu
Glu 385	Cys	Ala	Asp	Asp	Arg 390	Ala	Asp	Leu	Ala	Lys 395	Tyr	Ile	Суѕ	Glu	Asn 400
Gln	Asp	Ser	Ile	Ser 405	Ser	Lys	Leu	Lys	Glu 410	Cys	Cys	Glu	Lys	Pro 415	Leu
Leu	Glu	Lys	Ser 420	His	Cys	Ile	Ala	Glu 425	Val	Glu	Asn	Asp	Glu 430	Met	Pro
Ala	Asp	Leu 435	Pro	Ser	Leu	Ala	Ala 440	Asp	Phe	Val	Glu	Ser 445	Lys	Asp	Val
Cys	Lys 450	Asn	Tyr	Ala	Glu	Ala 455	Lys	Asp	Val	Phe	Leu 460	Gly	Met	Phe	Leu
Tyr 465	Glu	Tyr	Ala	Arg	Arg 470	His	Pro	Asp	Tyr	Ser 475	Val	Val	Leu	Leu	Leu 480
Arg	Leu	Ala	Lys	Thr 485	Tyr	Glu	Thr	Thr	Leu 490	Glu	Lys	Суѕ	Cys	Ala 495	Ala
Ala	Asp	Pro	His 500	Glu	Cys	Tyr	Ala	Lys 505	Val	Phe	Asp	Glu	Phe 510	Lys	Pro
Leu	Val	Glu 515	Glu	Pro	Gln	Asn	Leu 520	Ile	Lys	Gln	Asn	Cys 525	Glu	Leu	Phe
Glu	Gln 530	Leu	Gly	Glu	Tyr	Lys 535	Phe	Gln	Asn	Ala	Leu 540	Leu	Val	Arg	Tyr
Thr 545	Lys	Lys	Val	Pro	Gln 550	Val	Ser	Thr	Pro	Thr 555	Leu	Val	Glu	Val	Ser 560
Arg	Asn	Leu	Gly	Lys 565	Val	Gly	Ser	Lys	Cys 570	Суѕ	Lys	His	Pro	Glu 575	Ala
					_	_									

Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln 580 585 585

Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys

595 600 605

Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu 610 620

Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 625 630 635 640

Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile 645 650 655

Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala 660 665 670

Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val 675 680 685

Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu 690 695 700

Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 705 710 715

<210> 1639

<211> 686

<212> PRT

<213> Homo sapiens

<400> 1639

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 5 10 15

Ile Ser Ala Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn
40
45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His 50 55 60

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe 85 90 95

Lys Asp Leu Gly Glu Asp Ala His Lys Ser Glu Val Ala His Arg Phe 100 105 110

Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe 115 120 125

Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val 130 135 140

Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala 145 150 155 160

Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys 165 170 175

Thr	Val	Ala	Thr 180	Leu	Arg	Glu	Thr	Tyr 185	Gly	Glu	Met	Ala	Asp 190	Cys	Cys
Ala	Lys	Gln 195	Glu	Pro	Glu	Arg	Asn 200	Glu	Cys	Phe	Leu	Gln 205	His	Lys	Asp
Asp	Asn 210	Pro	Asn	Leu	Pro	Arg 215	Leu	Val	Arg	Pro	Glu 220	Val	Asp	Val	Met
Cys 225	Thr	Ala	Phe	His	Asp 230	Asn	Glu	Glu	Thr	Phe 235	Leu	Lys	Lys	Tyr	Leu 240
Tyr	Glu	Ile	Ala	Arg 245	Arg	His	Pro	Tyr	Phe 250	Tyr	Ala	Pro	Glu	Leu 255	Leu
Phe	Phe	Ala	Lys 260	Arg	Tyr	Lys	Ala	Ala 265	Phe	Thr	Glu	Cys	Cys 270	Gln	Ala
Ala	Asp	Lys 275	Ala	Ala	Cys	Leu	Leu 280	Pro	Lys	Leu	Asp	Glu 285	Leu	Arg	Asp
Glu	Gly 290	Lys	Ala	Ser	Ser	Ala 295	Lys	Gln	Arg	Leu	Lys 300	Cys	Ala	Ser	Leu
Gln 305	Lys	Phe	Gly	Glu	Arg 310	Ala	Phe	Lys	Ala	Trp 315	Ala	Val	Ala	Arg	Leu 320
Ser	Gln	Arg	Phe	Pro 325	Lys	Ala	Glu	Phe	Ala 330	Glu	Val	Ser	Lys	Leu 335	Val
Thr	Asp	Leu	Thr 340	Lys	Val	His	Thr	Glu 345	Cys	Cys	His	Gly	Asp 350	Leu	Leu
Glu	Cys	Ala 355	Asp	Asp	Arg	Ala	Asp 360	Leu	Ala	Lys	Tyr	11e 365	Cys	Glu	Asn
Gln	Asp 370	Ser	Ile	Ser	Ser	Lys 375	Leu	Lys	Glu	Cys	Суs 380	Glu	Lys	Pro	Leu
Leu 385	Glu	Lys	Ser	His	Cys 390	Ile	Ala	Glu	Val	G1u 395	Asn	Asp	Glu	Met	Pro 400
Ala	Asp	Leu	Pro	Ser 405	Leu	Ala	Ala	Asp	Phe 410	Val	Glu	Ser	Lys	Asp 415	Val
Суѕ	Lys	Asn	Tyr 420	Ala	Glu	Ala	Lys	Asp 425	Val	Phe	Leu	Gly	Met 430	Phe	Leu
Tyr	Glu	Tyr 435	Ala	Arg	Arg	His	Pro 440	Asp	Tyr	Ser	Val	Val 445	Leu	Leu	Leu
Arg	Leu 450	Ala	Lys	Thr	Tyr	Glu 455	Thr	Thr	Leu	Glu	Lys 460	Cys	Cys	Ala	Ala
Ala 465	Asp	Pro	His	Glu	Cys 470	Tyr	Ala	Lys	Val	Phe 475	Asp	Glu	Phe	Lys	Pro 480
Leu	Val	Glu	Glu	Pro 485	Gln	Asn	Leu	Ile	Lys 490	Gln	Asn	Cys	Glu	Leu 495	Phe
Glu	Gln	Leu	Gly 500	Glu	Tyr	Lys	Phe	Gln 505	Asn	Ala	Leu	Leu	Val 510	Arg	Tyr

Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala
Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn S60
Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys
Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu
Ser Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe
His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Lys Glu Arg Gln Ile

Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser

Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala 625 630 635 640

Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val 645 650 655

Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu 660 665 670

Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 675 680 685

<210> 1640

<211> 655

<212> PRT

<213> Homo sapiens

<400> 1640

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg His Gly Glu Gly Thr Phe Thr Ser 20 25 30

Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala

Trp Leu Val Lys Gly Arg Asp Ala His Lys Ser Glu Val Ala His Arg

Phe Lys Asp Leu Gly Glu Asp Ala His Lys Ser Glu Val Ala His Arg 65 70 75 80

Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala 85 90 95

Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu 100 105 110

Val Asn	Glu Val 115	. Thr	Glu	Phe	Ala 120	Lys	Thr	Cys	Val	Ala 125	Asp	Glu	Ser
Ala Glu 130	Asn Cys	asp	Lys	Ser 135	Leu	His	Thr	Leu	Phe 140	Gly	Asp	Lys	Leu
Cys Thr 145	Val Ala	Thr	Leu 150	Arg	Glu	Thr	Tyr	Gly 155	Glu	Met	Ala	Asp	Cys 160
Cys Ala	Lys Glı	165	Pro	Glu	Arg	Asn	Glu 170	Cys	Phe	Leu	Gln	His 175	Lys
Asp Asp	Asn Pro		Leu	Pro	Arg	Leu 185	Val	Arg	Pro	Glu	Val 190	Asp	Val
Met Cys	Thr Ala	Phe	His	Asp	Asn 200	Glu	Glu	Thr	Phe	Leu 205	Lys	Lys	Tyr
Leu Tyr 210	Glu Ile	e Ala	Arg	Arg 215	His	Pro	Tyr	Phe	Tyr 220	Ala	Pro	Glu	Leu
Leu Phe 225	Phe Ala	Lys	Arg 230	Tyr	Lys	Ala	Ala	Phe 235	Thr	Glu	Cys	Cys	Gln 240
Ala Ala	Asp Ly:	245	Ala	Cys	Leu	Leu	Pro 250	Lys	Leu	Asp	Glu	Leu 255	Arg
Asp Glu	Gly Ly: 26		Ser	Ser	Ala	Lys 265	Gln	Arg	Leu	Lys	Cys 270	Ala	Ser
Leu Gln	Lys Pho 275	e Gly	Glu	Arg	Ala 280	Phe	Lys	Ala	Trp	Ala 285	Val	Ala	Arg
Leu Ser 290	Gln Ar	g Phe	Pro	Lys 295	Ala	Glu	Phe	Ala	Glu 300	Val	Ser	Lys	Leu
Val Thr 305	Asp Le	ı Thr	Lys 310	Val	His	Thr	Glu	Cys 315	Cys	His	Gly	Asp	Leu 320
Leu Glu	Cys Ala	325	Asp	Arg	Ala	Asp	Leu 330	Ala	Lys	Tyr	Ile	Cys 335	Glu
Asn Gln	Asp Se:		Ser	Ser	Lys	Leu 345	Lys	Glu	Суѕ	Cys	Glu 350	Lys	Pro
Leu Leu	Glu Ly: 355	s Ser	His	Cys	11e 360	Ala	Glu	Val	Glu	Asn 365	Asp	Glu	Met
Pro Ala 370	Asp Le	ı Pro	Ser	Leu 375	Ala	Ala	Asp	Phe	Val 380	Glu	Ser	Lys	Asp
Val Cys 385	Lys As	ı Tyr	Ala 390	Glu	Ala	Lys	Asp	Val 395	Phe	Leu	Gly	Met	Phe 400
Leu Tyr	Glu Ty	Ala 405	Arg	Arg	His	Pro	Asp 410	Tyr	Ser	Val	Val	Leu 415	Leu
Leu Arg	Leu Ala 42		Thr	Tyr	Glu	Thr 425	Thr	Leu	Glu	Lys	Cys 430	Cys	Ala
Ala Ala	Asp Pro) His	Glu	Cys	Tyr 440	Ala	Lys	Val	Phe	Asp 445	Glu	Phe	Lys

Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu 450 455 460

Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg 465 470 475 480

Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val
485 490 495

Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu 500 505 510

Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn 515 520 525

Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr 530 535 540

Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala 545 550 555 560

Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr
565 570 575

Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln 580 585 590

Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys 595 600 605

Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe 610 615 620

Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 625 630 635 640

Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 645 650 655

<210> 1641

<211> 970

<212> PRT

<213> Homo sapiens

<400> 1641

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asn Glu Ile Leu Gly Leu Lys Leu 20 25 30

Pro Gly Glu Pro Pro Leu Thr Ala Asn Thr Val Cys Leu Thr Leu Ser 35 40 45

Gly Leu Ser Lys Arg Gln Leu Asp Leu Cys Leu Arg Asn Pro Asp Val 50 60

Thr Ala Ser Ala Leu Gln Gly Leu His Ile Ala Val His Glu Cys Gln 65 70 75 80

His Gln Leu Arg Asp Gln Arg Trp Asn Cys Ser Ala Leu Glu Gly Gly

Gly Arg Leu Pro His His Ser Ala Ile Leu Lys Arg Gly Phe Arg Glu Ser Ala Phe Ser Phe Ser Met Leu Ala Ala Gly Val Met His Ala Val 120 Ala Thr Ala Cys Ser Leu Gly Lys Leu Val Ser Cys Gly Cys Gly Trp 135 Lys Gly Ser Gly Glu Gln Asp Arg Leu Arg Ala Lys Leu Leu Gln Leu Gln Ala Leu Ser Arg Gly Lys Ser Phe Pro His Ser Leu Pro Ser Pro 165 170 Gly Pro Gly Ser Ser Pro Ser Pro Gly Pro Gln Asp Thr Trp Glu Trp Gly Gly Cys Asn His Asp Met Asp Phe Gly Glu Lys Phe Ser Arg Asp Phe Leu Asp Ser Arg Glu Ala Pro Arg Asp Ile Gln Ala Arg Met Arg 215 Ile His Asn Asn Arg Val Gly Arg Gln Val Val Thr Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr Ser Gly Ser Cys Gln Phe Lys Thr 250 Cys Trp Arg Ala Ala Pro Glu Phe Arg Ala Val Gly Ala Ala Leu Arg 265 Glu Arg Leu Gly Arg Ala Ile Phe Ile Asp Thr His Asn Arg Asn Ser 280 Gly Ala Phe Gln Pro Arg Leu Arg Pro Arg Arg Leu Ser Gly Glu Leu 295 Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu Arg Asp Pro Thr Met Gly Ser Pro Gly Thr Arg Gly Arg Ala Cys Asn Lys Thr Ser Arg Leu 330 Leu Asp Gly Cys Gly Ser Leu Cys Cys Gly Arg Gly His Asn Val Leu Arg Gln Thr Arg Val Glu Arg Cys His Cys Arg Phe His Trp Cys Cys Tyr Val Leu Cys Asp Glu Cys Lys Val Thr Glu Trp Val Asn Val Cys Lys Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu 405 410

Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr

420

435 440 445

Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr

425

430

450 455 460

Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu

Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn

Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe 500 505 510

His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala 515 520 525

Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys 530 535 540

Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala 545 550 555 560

Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala 565 570 575

Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly 580 585 590

Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe 595 600 605

Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr 610 $\,$ 620 $\,$

Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp 625 630 635 640

Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile 645 650 655

Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser 660 665 670

His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro 675 680 685

Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr 690 695 700

Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala 705 710 715 720

Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys
725 730 735

Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His
740 745 750

Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu

755 760 765

Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly 770 780

Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val 785 790 795 800

Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly 805 810 815

Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro 820 825 830

Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu 835 840 845

His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu 850 855 860

Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu 865 870 875 880

Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala 885 890 895

Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr 900 905 910

Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln 915 920 925

Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys 930 940

Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu 945 950 955 960

Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 965 970

<210> 1642

<211> 939

<212> PRT

<213> Homo sapiens

<400> 1642

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ile Lys Trp Leu Ala Leu Ser Lys 20 25 30

Thr Pro Ser Ala Leu Ala Leu Asn Gln Thr Gln His Cys Lys Gln Leu 35 40 45

Glu Gly Leu Val Ser Ala Gln Val Gln Leu Cys Arg Ser Asn Leu Glu 50 60

Leu Met His Thr Val Val His Ala Ala Arg Glu Val Met Lys Ala Cys
65 70 75 80

Arg	Arg	Ala	Phe	Ala 85	Asp	Met	Arg	Trp	Asn 90	Cys	Ser	Ser	Ile	Glu 95	Leu
Ala	Pro	Asn	Tyr 100	Leu	Leu	Asp	Leu	Glu 105	Arg	Gly	Thr	Arg	Glu 110	Ser	Ala
Phe	Val	Tyr 115	Ala	Leu	Ser	Ala	Ala 120	Ala	Ile	Ser	His	Ala 125	Ile	Ala	Arg
Ala	Cys 130	Thr	Ser	Gly	Asp	Leu 135	Pro	Gly	Cys	Ser	Cys 140	Gly	Pro	Val	Pro
Gly 145	Glu	Pro	Pro	Gly	Pro 150	Gly	Asn	Arg	Trp	Gly 155	Gly	Суѕ	Ala	Asp	Asn 160
Leu	Ser	Tyr	Gly	Leu 165	Leu	Met	Gly	Ala	Lys 170	Phe	Ser	Asp	Ala	Pro 175	Met
Lys	Val	Lys	Lys 180	Thr	Gly	Ser	Gln	Ala 185	Asn	Lys	Leu	Met	Arg 190	Leu	His
Asn	Ser	Glu 195	Val	Gly	Arg	Gln	Ala 200	Leu	Arg	Ala	Ser	Leu 205	Glu	Met	Lys
Cys	Lys 210	Cys	His	Gly	Val	Ser 215	Gly	Ser	Cys	Ser	11e 220	Arg	Thr	Cys	Trp
Lys 225	Gly	Leu	Gln	Glu	Leu 230	Gln	Asp	Val	Ala	Ala 235	Asp	Leu	Lys	Thr	Arg 240
Tyr	Leu	Ser	Ala	Thr 245	Lys	Val	Val	His	Arg 250	Pro	Met	Gly	Thr	Arg 255	Lys
His	Leu	Val	Pro 260	Lys	Asp	Leu	Asp	11e 265	Arg	Pro	Val	Lys	Asp 270	Ser	Glu
Leu	Val	Туr 275	Leu	Gln	Ser	Ser	Pro 280	Asp	Phe	Cys	Met	Lys 285	Asn	Glu	Lys
Val	Gly 290	Ser	His	Gly	Thr	Gln 295	Asp	Arg	Gln	Cys	Asn 300	Lys	Thr	Ser	Asn
Gly 305	Ser	Asp	Ser	Cys	Asp 310	Leu	Met	Cys	Cys	Gly 315	Arg	Gly	Tyr	Asn	Pro 320
Tyr	Thr	Asp	Arg	Val 325	Val	Glu	Arg	Cys	His 330	Cys	Lys	Tyr	His	Trp 335	Cys
Cys	Tyr	Val	Thr 340	Cys	Arg	Arg	Суз	G1u 345	Arg	Thr	Val	Glu	Arg 350	Tyr	Val
Cys	Lys	Asp 355	Ala	His	Lys	Ser	Glu 360	Val	Ala	His	Arg	Phe 365	Lys	Asp	Leu
Gly	Glu 370	Glu	Asn	Phe	Lys	Ala 375	Leu	Val	Leu	Ile	Ala 380	Phe	Ala	Gln	Tyr
Leu 385	Gln	Gln	Cys	Pro	Phe 390	Glu	Asp	His	Val	Lys 395	Leu	Val	Asn	Glu	Val 400
Thr	Glu	Phe	Ala	Lys 405	Thr	Cys	Val	Ala	Asp 410	Glu	Ser	Ala	Glu	Asn 415	Cys

Asp Ly	/s Ser	Leu 420	His	Thr	Leu	Phe	Gly 425	Asp	Lys	Leu	Cys	Thr 430	Val	Ala
Thr Le	eu Arg 435	Glu	Thr	Tyr	Gly	Glu 440	Met	Ala	Asp	Cys	Cys 445	Ala	Lys	Gln
Glu Pi 45	co Glu 50	Arg	Asn	Glu	Cys 455	Phe	Leu	Gln	His	Lys 460	Asp	Asp	Asn	Pro
Asn Le	eu Pro	Arg	Leu	Val 470	Arg	Pro	Glu	Va1	Asp 475	Val	Met	Cys	Thr	Ala 480
Phe Hi	is Asp	Asn	Glu 485	Glu	Thr	Phe	Leu	Lys 490	Lys	Tyr	Leu	Tyr	Glu 495	Ile
Ala Ai	rg Arg	His 500	Pro	Tyr	Phe	Tyr	Ala 505	Pro	Glu	Leu	Leu	Phe 510	Phe	Ala
Lys Ai	rg Tyr 515	Lys	Ala	Ala	Phe	Thr 520	Glu	Cys	Cys	Gln	Ala 525	Ala	Asp	Lys
	la Cys 30	Leu	Leu	Pro	Lys 535	Leu	Asp	Glu	Leu	Arg 540	Asp	Glu	Gly	Lys
Ala Se 545	er Ser	Ala	Lys	Gln 550	Arg	Leu	Lys	Cys	Ala 555	Ser	Leu	Gln	Lys	Phe 560
Gly G	lu Arg	Ala	Phe 565	Lys	Ala	Trp	Ala	Val 570	Ala	Arg	Leu	Ser	G1n 575	Arg
Phe Pr	ro Lys	Ala 580	Glu	Phe	Ala	Glu	Val 585	Ser	Lys	Leu	Val	Thr 590	Asp	Leu
Thr Ly	ys Val 595	His	Thr	Glu	Cys	Cys	His	Gly	Asp	Leu	Leu 605	Glu	Cys	Ala
_	sp Arg 10	Ala	Asp	Leu	Ala 615	Lys	Tyr	Ile	Cys	Glu 620	Asn	Gln	Asp	Ser
Ile Se 625	er Ser	Lys	Leu	Lys 630	Glu	Суѕ	Cys	Glu	Lys 635	Pro	Leu	Leu	Glu	Lys 640
Ser H	is Cys	Ile	Ala 645	Glu	Val	Glu	Asn	Asp 650	Glu	Met	Pro	Ala	Asp 655	Leu
Pro Se	er Leu	Ala 660	Ala	Asp	Phe	Val	Glu 665	Ser	Lys	Asp	Val	Cys 670	Lys	Asn
Tyr A	la Glu 675		Lys	Asp	Val	Phe 680	Leu	Gly	Met	Phe	Leu 685	Tyr	Glu	Tyr
	rg Arg 90	His	Pro	Asp	Туг 695	Ser	Val	Val	Leu	Leu 700	Leu	Arg	Leu	Ala
Lys Ti 705	hr Tyr	Glu	Thr	Thr 710	Leu	Glu	Lys	Суз	Cys 715	Ala	Ala	Ala	Asp	Pro 720
His G	lu Cys	Tyr	Ala 725	Lys	Val	Phe	Asp	Glu 730	Phe	Lys	Pro	Leu	Val 735	Glu
Glu P	ro Gln	Asn 740	Leu	Ile	Lys	Gln	Asn 745	Суѕ	Glu	Leu	Phe	Glu 750	Gln	Leu

Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys 755 760 765

Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu
770 780

Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met 785 790 795 800

Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val 805 810 815

Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr 820 825 830

Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp 835 840 845

Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His 850 . 855 860

Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln 865 870 875 880

Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu 885 890 895

Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys 900 905 910

Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys 915 920 925

Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 930 935

<210> 1643

<211> 1006

<212> PRT

<213> Homo sapiens

<400> 1643

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Thr Gln Val Cys Thr Gly Thr Asp

Met Lys Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu

Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu 50 60

Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln 65 70 75 80

Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val
85 90 95

Pro Leu Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu 135 Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly 200 Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala 250 Cys Leu His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn 295 Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Gly Thr His Ser Leu Pro Pro Arg Pro Ala 345 Ala Val Pro Val Pro Leu Arg Met Gln Pro Gly Pro Ala His Pro Val 360 Leu Ser Phe Leu Arg Pro Ser Trp Asp Leu Val Ser Ala Phe Tyr Ser 375 Leu Pro Leu Ala Pro Leu Ser Pro Thr Ser Val Pro Ile Ser Pro Val Ser Val Gly Arg Gly Pro Asp Pro Asp Ala His Val Ala Val Asp Leu 410 Ser Arg Tyr Glu Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe

Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe 435 440 Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val 455 Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala 475 Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala 585 Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu 630 Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu 665 Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn 680 Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro 715 Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val 730 Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu 745 Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu 760

Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr 825 Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln 875 Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu 905 Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 920 Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala 950 955 Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val 970 Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 1000 1005

<210> 1644

<211> 635

<212> PRT

<213> Homo sapiens

<400> 1644

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ala His Gln Ile Tyr Gln Phe Thr 20 25 30

Asp Lys Asp Lys Asp Asn Val Ala Pro Arg Ser Lys Ile Ser Pro Gln 35 40

Gly Tyr Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu

65	Gru	GIU	ASII	rne	70	AIG	Leu	vai	Leu	75	на	FIIE	AIA	GIII	80
Leu	Gln	Gln	Cys	Pro 85	Phe	Glu	Asp	His	Val 90	Lys	Leu	Val	Asn	Glu 95	Val
Thr	Glu	Phe	Ala 100	Lys	Thr	Cys	Val	Ala 105	Asp	Glu	Ser	Ala	Glu 110	Asn	Суз
Asp	Lys	Ser 115	Leu	His	Thr	Leu	Phe 120	Gly	Asp	Lys	Leu	Cys 125	Thr	Val	Ala
Thr	Leu 130	Arg	Glu	Thr	Tyr	Gly 135	Glu	Met	Ala	Asp	Cys 140	Cys	Ala	Lys	Glr
Glu 145	Pro	Glu	Arg	Asn	Glu 150	Cys	Phe	Leu	Gln	His 155	Lys	Asp	Asp	Asn	Pro 160
Asn	Leu	Pro	Arg	Leu 165	Val	Arg	Pro	Glu	Val 170	Asp	Val	Met	Cys	Thr 175	Ala
Phe	His	Asp	Asn 180	Glu	Glu	Thr	Phe	Leu 185	Lys	Lys	Tyr	Leu	Туг 190	Glu	Il€
Ala	Arg	Arg 195	His	Pro	Tyr	Phe	Туr 200	Ala	Pro	Glu	Leu	Leu 205	Phe	Phe	Ala
Lys	Arg 210	Tyr	Lys	Ala	Ala	Phe 215	Thr	Glu	Cys	Cys	Gln 220	Ala	Ala	Asp	Lys
Ala 225	Ala	Cys	Leu	Leu	Pro 230	Lys	Leu	Asp	Glu	Leu 235	Arg	Asp	Glu	Gly	Lys 240
Ala	Ser	Ser	Ala	Lys 245	Gln	Arg	Leu	Lys	Cys 250	Ala	Ser	Leu	Gln	Lys 255	Phe
Gly	Glu	Arg	Ala 260	Phe	Lys	Ala	Trp	Ala 265	Val	Ala	Arg	Leu	Ser 270	Gln	Arg
Phe	Pro	Lys 275	Ala	Glu	Phe	Ala	Glu 280	Val	Ser	Lys	Leu	Va1 285	Thr	Asp	Leu
Thr	Lys 290	Val	His	Thr	Glu	Cys 295	Cys	His	Gly	Asp	Leu 300	Leu	Glu	Cys	Ala
Asp 305	Asp	Arg	Ala	Asp	Leu 310	Ala	Lys	Tyr	Ile	Cys 315	Glu	Asn	Gln	Asp	Ser 320
Ile	Ser	Ser	Lys	Leu 325	Lys	Glu	Cys	Cys	Glu 330	Lys	Pro	Leu	Leu	Glu 335	Lys
Ser	His	Суѕ	11e 340	Ala	Glu	Val	Glu	Asn 345	Asp	Glu	Met	Pro	Ala 350	.Asp	Let
Pro	Ser	Leu 355	Ala	Ala	Asp	Phe	Val 360	Glu	Ser	Lys	Asp	Val 365	Cys	Lys	Asr
Tyr	Ala 370	Glu	Ala	Lys	Asp	Val 375	Phe	Leu	Gly	Met	Phe 380	Leu	Tyr	Glu	Туг

Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala

385 390 395 400

Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro
405 410 415

His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu 420 425 430

Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu 435 440 445

Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys 450 455 460

Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu 465 470 475 480

Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met 485 490 495

Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val 500 505 510

Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr 515 520 525

Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp 530 540

Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His 545 550 560

Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln 565 570 575

Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu 580 585 590

Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys
595 600 605

Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys 610 620

Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 625 630 635

<210> 1645

<211> 671

<212> PRT

<213> Homo sapiens

<400> 1645

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 135 Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 155 Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 215 Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly 260 265 Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 295 Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser 330 Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys 375 380

Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu 390 Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val 440 Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 490 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 500 505 Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 520 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 535 Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 555 Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 570 Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 600 605 Leu Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Pro 650 Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln 665

<210> 1646

<211> 672

<211> 072

<213> Homo sapiens

<400> 1646

Met 1	Leu	Leu	Gln	Ala 5	Phe	Leu	Phe	Leu	Leu 10	Ala	Gly	Phe	Ala	Ala 15	Lys
Ile	Ser	Ala	Met 20	Arg	Gly	Pro	Tyr	His 25	Pro	Ser	Glu	Сув	Суs 30	Phe	Thr
Tyr	Thr	Thr 35	Tyr	Lys	Ile	Pro	Arg 40	Gln	Arg	Ile	Met	Asp 45	Tyr	Tyr	Glu
Thr	Asn 50	Ser	Gln	Cys	Ser	Lys 55	Pro	Gly	Ile	Val	Phe 60	Ile	Thr	Lys	Arg
Gly 65	His	Ser	Val	Cys	Thr 70	Asn	Pro	Ser	Asp	Lys 75	Trp	Val	Gln	Asp	Tyr 80
Ile	Lys	Asp	Met	Lys 85	Glu	Asn	Asp	Ala	His 90	Lys	Ser	Glu	Val	Ala 95	His
Arg	Phe	Lys	Asp 100	Leu	Gly	Glu	Glu	Asn 105	Phe	Lys	Ala	Leu	Val 110	Leu	Ile
Ala	Phe	Ala 115	Gln	Tyr	Leu	Gln	Gln 120	Cys	Pro	Phe	Glu	Asp 125	His	Val	Lys
Leu	Val 130	Asn	Glu	Val	Thr	Glu 135	Phe	Ala	Lys	Thr	Cys 140	Val	Ala	Asp	Glu
Ser 145	Ala	Glu	Asn	Суѕ	Asp 150	Lys	Ser	Leu	His	Thr 155	Leu	Phe	Gly	Asp	Lys 160
Leu	Cys	Thr	Val	Ala 165	Thr	Leu	Arg	Glu	Thr 170	Tyr	Gly	Glu	Met	Ala 175	Asp
Cys	Cys	Ala	Lys 180	Gln	Glu	Pro	Glu	Arg 185	Asn	Glu	Суѕ	Phe	Leu 190	Gln	His
Lys	Asp	Asp 195	Asn	Pro	Asn	Leu	Pro 200	Arg	Leu	Val	Arg	Pro 205	Glu	Val	Asp
Val	Met 210	Cys	Thr	Ala	Phe	His 215	Asp	Asn	Glu	Glu	Thr 220		Leu	Lys	Lys
Tyr 225	Leu	Tyr	Glu	Ile	Ala 230	Arg	Arg	His	Pro	Туг 235	Phe	Tyr	Ala	Pro	Glu 240
Leu	Leu	Phe	Phe	Ala 245	Lys	Arg	Tyr	Lys	Ala 250	Ala	Phe	Thr	Glu	Cys 255	Суѕ
Gln	Ala	Ala	Asp 260	Lys	Ala	Ala	Cys	Leu 265	Leu	Pro	Lys	Leu	Asp 270	Glu	Leu
Arg		Glu 275	Gly	Lys	Ala	Ser	Ser 280	Ala	Lys	Gln	Arg	Leu 285	Lys	Cys	Ala
Ser	Leu 290	Gln	Lys	Phe	Gly	Glu 295	Arg	Ala	Phe	Lys	Ala 300	Trp	Ala	Val	Ala
Arg 305	Leu	Ser	Gln	Arg	Phe 310	Pro	Lys	Ala	Glu	Phe 315	Ala	Glu	Val	Ser	Lys 320
Leu	Val	Thr	Asp	Leu 325	Thr	Lys	Val	His	Thr 330	Glu	Сув	Сув	His	Gly 335	Asp

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys 340 345 Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys 440 Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val 490 Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser 565 570 Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg 600 Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro 615 Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala 650 Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu

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<210> 1647
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<211> 673

<212> PRT

<213> Homo sapiens

<400> 1647

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 1 5 10 15

Ile Ser Ala Met Ser Arg Gly Pro Tyr His Pro Ser Glu Cys Cys Phe $20 \\ 25 \\ 30$

Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr 35 40 45

Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys
50 55 60

Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp 65 70 75 80

Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala 85 90 95

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 100 105 110

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 115 120 125

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 130 135 140

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 145 150 155 160

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 165 170 175

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 180 185 190

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
195 200 205

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 210 220

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 225 230 235 240

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 245 250 255

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 260 265 270

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys

		275					280					285			
Ala S	Ser 290	Leu	Gln	Lys	Phe	Gly 295	Glu	Arg	Ala	Phe	Lys 300	Ala	Trp	Ala	Val
Ala <i>A</i> 305	Arg	Leu	Ser	Gln	Arg 310	Phe	Pro	Lys	Ala	Glu 315	Phe	Ala	Glu	Val	Ser 320
Lys I	Leu	Val	Thr	Asp 325	Leu	Thr	Lys	Val	His 330	Thr	Glu	Cys	Cys	His 335	Gly
Asp I	Leu	Leu	Glu 340	Cys	Ala	Asp	Asp	Arg 345	Ala	Asp	Leu	Ala	Lys 350	Tyr	Ile
Cys G	3lu	Asn 355	Gln	qaA	Ser	Ile	Ser 360	Ser	Lys	Leu	Lys	Glu 365	Cys	Cys	Glu
Lys E	Pro 370	Leu	Leu	Glu	Lys	Ser 375	His	Cys	Ile	Ala	Glu 380	Val	Glu	Asn	Asp
Glu M 385	/let	Pro	Ala	Asp	Leu 390	Pro	Ser	Leu	Ala	Ala 395	qzA	Phe	Val	Glu	Ser 400
Lys A	Asp	Val	Cys	Lys 405	Asn	Tyr	Ala	Glu	Ala 410	Lys	qzA	Val	Phe	Leu 415	Gly
Met E	?he	Leu	Tyr 420	Glu	Tyr	Ala	Arg	Arg 425	His	Pro	Asp	Tyr	Ser 430	Val	Val
Leu I	Leu	Leu 435	Arg	Leu	Ala	Lys	Thr 440	Tyr	Glu	Thr	Thr	Leu 445	Glu	Lys	Cys
Cys A	Ala 150	Ala	Ala	Asp	Pro	His 455	Glu	Cys	Tyr	Ala	Lys 460	Val	Phe	Asp	Glu
Phe I 465	ŗys	Pro	Leu	Val	Glu 470	Glu	Pro	Gln	Asn	Leu 475	Ile	Lys	Gln	Asn	Cys 480
Glu I	Leu	Phe	Glu	Gln 485	Leu	Gly	Glu	Tyr	Lys 490	Phe	Gln	Asn	Ala	Leu 495	Leu
Val A	Arg	Tyr	Thr 500	Lys	Lys	Val	Pro	Gln 505	Val	Ser	Thr	Pro	Thr 510	Leu	Val
Glu V	/al	Ser 515	Arg	Asn	Leu	Gly	Lys 520	Val	Gly	Ser	Lys	Cys 525	Cys	Lys	His
Pro C	31u 530	Ala	Lys	Arg	Met	Pro 535	Cys	Ala	Glu	Asp	Tyr 540	Leu	Ser	Val	Val
Leu <i>F</i> 545	Asn	Gln	Leu	Cys	Val 550	Leu	His	Glu	Lys	Thr 555	Pro	Val	Ser	Asp	Arg 560
Val 1	l'hr	Lys	Cys	Cys 565	Thr	Glu	Ser	Leu	Val 570	Asn	Arg	Arg	Pro	Cys 575	Phe
Ser A	Ala	Leu	Glu 580	Val	Asp	Glu	Thr	Tyr 585	Val	Pro	Lys	Glu	Phe 590	Asn	Ala
Glu 7	Thr	Phe 595	Thr	Phe	His	Ala	Asp 600	Ile	Cys	Thr	Leu	Ser 605	Glu	Lys	Glu

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys

610 615 620

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 625 630 635 640

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 645 650 655

Ala Glu Glu Gly Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
660 665 670

Leu

<210> 1648

<211> 673

<212> PRT

<213> Homo sapiens

<400> 1648

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 10 15

Ile Ser Ala Met Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys Cys
20 25 30

Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr 35 40 45

Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr 50 60

Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln 65 70 75 80

Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val 85 90 95

Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val 100 105 110

Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His 115 120 125

Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala 130 135 140

Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly 145 150 155 160

Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met 165 170 175

Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu 180 185 190

Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu 195 200 205

Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu 210 215 220 Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala 230 Pro Glu Leu Pee Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys 280 285 Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val 310 315 Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His 325 330 Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr 345 Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu 385 390 395 Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu 410 Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys 440 Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu 490 Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 550 555

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 565 570 575

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 580 585 590

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 595 600 605 .

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 610 620

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 625 630 635 640

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 645 650 655

Ala Glu Glu Gly Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
660 665 670

Leu

<210> 1649

<211> 671

<212> PRT

<213> Homo sapiens

<400> 1649

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 10 15

Ile Ser Ala Met Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr 20 25 30

Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr 35 40 45

Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly 50 55 60

His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile 65 70 75 80

Lys Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His Arg 85 90 95

Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala 100 105 110

Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu 115 120 125

Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser 130 135 140

Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu 145 150 155 160

Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys 165 170 Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr 215 Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg 265 Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg 295 Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu 315 Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu 330 Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu 345 Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu 425 Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu 475 Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val
500 505 510

Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu 515 520 525

Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn 530 535 540

Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr 545 550 555 560

Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala 565 570 575

Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr 580 585 590

Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln 595 600 605

Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys 610 620

Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe 625 630 635 640

Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu 645 650 655

Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 660 665 670

<210> 1650

<211> 670

<212> PRT

<213> Homo sapiens

<400> 1650

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
1 5 10 15

Ile Ser Ala Met Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr 20 25 30

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn 35 40 45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His 50 55 60

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe 85 90 95

Lys Asp Leu Gly Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe 100 105 110

Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val

		115					120					125			
Asn	Glu 130	Val	Thr	Glu	Phe	Ala 135	Lys	Thr	Cys	Val	Ala 140	Asp	Glu	Ser	Ala
Glu 145	Asn	Cys	Asp	Lys	Ser 150	Leu	His	Thr	Leu	Phe 155	Gly	Asp	Lys	Leu	Cys 160
Thr	Val	Ala	Thr	Leu 165	Arg	Glu	Thr	Tyr	Gly 170	Glu	Met	Ala	Asp	Cys 175	Cys
Ala	Lys	Gln	Glu 180	Pro	Glu	Arg	Asn	Glu 185	Cys	Phe	Leu	Gln	His 190	Lys	Asp
Asp	Asn	Pro 195	Asn	Leu	Pro	Arg	Leu 200	Val	Arg	Pro	Glu	Val 205	Asp	Val	Met
Cys	Thr 210	Ala	Phe	His	Asp	Asn 215	Glu	Glu	Thr	Phe	Leu 220	Lys	Lys	Tyr	Leu
Туг 225	Glu	Ile	Ala	Arg	Arg 230	His	Pro	Tyr	Phe	Туг 235	Ala	Pro	Glu	Leu	Leu 240
Phe	Phe	Ala	Lys	Arg 245	Tyr	Lys	Ala	Ala	Phe 250	Thr	Glu	Cys	Cys	G1n 255	Ala
Ala	Asp	Lys	Ala 260	Ala	Cys	Leu	Leu	Pro 265	Lys	Leu	Asp	Glu	Leu 270	Arg	Asp
Glu	Gly	Lys 275	Ala	Ser	Ser	Ala	Lys 280	Gln	Arg	Leu	Lys	Cys 285	Ala	Ser	Leu
Gln	Lys 290	Phe	Gly	Glu	Arg	Ala 295	Phe	Lys	Ala	Trp	Ala 300	Val	Ala	Arg	Leu
Ser 305	Gln	Arg	Phe	Pro	Lys 310	Ala	Glu	Phe	Ala	Glu 315	Val	Ser	Lys	Leu	Val 320
Thr	Asp	Leu	Thr	Lys 325	Val	His	Thr	Glu	Cys 330	Cys	His	Gly	Asp	Leu 335	Leu
Glu	Cys	Ala	Asp 340	Asp	Arg	Ala	Asp	Leu 345	Ala	Lys	Tyr	Ile	Cys 350	Glu	Asn
Gln	Asp	Ser 355	Ile	Ser	Ser	Lys	Leu 360	Lys	Glu	Cys	Cys	Glu 365	Lys	Pro	Leu
Leu	Glu 370	Lys	Ser	His	Cys	Ile 375	Ala	Glu	Val	Glu	Asn 380	Asp	Glu	Met	Pro
Ala 385	Asp	Leu	Pro	Ser	Leu 390	Ala	Ala	Asp	Phe	Va1 395	Glu	Ser	Lys	Asp	Val 400
Суѕ	Lys	Asn	Tyr	Ala 405	Glu	Ala	Lys	Asp	Val 410	Phe	Leu	Gly	Met	Phe 415	Leu
туr	Glu	Tyr	Ala 420	Arg	Arg	His	Pro	Asp 425	Tyr	Ser	Val	Va1	Leu 430	Leu	Leu
Arg	Leu	Ala 435	Lys	Thr	Tyr	Glu	Thr 440	Thr	Leu	Glu	Lys	Cys 445	Cys	Ala	Ala

Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro

Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe 470 475 Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr 490 Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln 535 Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu 570 Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 585 Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile 600 Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 665

<210> 1651

<211> 678

<212> PRT

<213> Homo sapiens

<400> 1651

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Ala Thr Ser Ala Asp Cys Cys Ile Ser Tyr Thr 20 25 30

Pro Arg Ser Ile Pro Cys Ser Leu Leu Glu Ser Tyr Phe Glu Thr Asn
35 40 45

Ser Glu Cys Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Lys Gly Arg 50 60

Arg Phe Cys Ala Asn Pro Ser Asp Lys Gln Val Gln Val Cys Met Arg 65 70 75 80 Met Leu Lys Leu Asp Thr Arg Ile Lys Thr Arg Lys Asn Asp Ala His 90 Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 135 Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr 170 Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu 200 Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 250 Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu 265 Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe 295 Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp 345 Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala 395 Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys 405 410

Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala 455 Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu 470 Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 505 Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser 520 Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 535 Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 580 585 Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 600 Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val 625 630 635 Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 665

<210> 1652

<211> 685

<212> PRT

<213> Homo sapiens

Gln Ala Ala Leu Gly Leu 675

<400> 1652

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala

His	Arg	Phe 35	Lys	Asp	Leu	Gly	Glu 40	Glu	Asn	Phe	Lys	Ala 45	Leu	Val	Leu
Ile	Ala 50	Phe	Ala	Gln	Tyr	Leu 55	Gln	Gln	Cys	Pro	Phe 60	Glu	Asp	His	Val
Lys 65	Leu	Val	Asn	Glu	Val 70	Thr	Glu	Phe	Ala	Lys 75	Thr	Cys	Val	Ala	Asp 80
Glu	Ser	Ala	Glu	Asn 85	Cys	Asp	Lys	Ser	Leu 90	His	Thr	Leu	Phe	Gly 95	Asp
Lys	Leu	Cys	Thr 100	Va1	Ala	Thr	Leu	Arg 105	Glu	Thr	Tyr	Gly	Glu 110	Met	Ala
Asp	Cys	Cys 115	Ala	Lys	Gln	Glu	Pro 120	Glu	Arg	Asn	Glu	Cys 125	Phe	Leu	Gln
His	Lys 130	Asp	Asp	Asn	Pro	Asn 135	Leu	Pro	Arg	Leu	Val 140	Arg	Pro	Glu	Val
Asp 145	Val	Met	Cys	Thr	Ala 150	Phe	His	Asp	Asn	Glu 155	Glu	Thr	Phe	Leu	Lys 160
Lys	Tyr	Leu	Tyr	Glu 165	Ile	Ala	Arg	Arg	His 170	Pro	Tyr	Phe	Tyr	Ala 175	Pro
Glu	Leu	Leu	Phe 180	Phe	Ala	Lys	Arg	Tyr 185	Lys	Ala	Ala	Phe	Thr 190	Glu	Суѕ
Суѕ	Gln	Ala 195	Ala	Asp	Lys	Ala	Ala 200	Cys	Leu	Leu	Pro	Lys 205	Leu	Asp	Glu
Leu	Arg 210	Asp	Glu	Gly	Lys	Ala 215	Ser	Ser	Ala	Lys	Gln 220	Arg	Leu	Lys	Cys
Ala 225	Ser	Leu	Gln	Lys	Phe 230	Gly	Glu	Arg	Ala	Phe 235	Lys	Ala	Trp	Ala	Val 240
Ala	Arg	Leu	Ser	Gln 245	Arg	Phe	Pro	Lys	Ala 250	Glu	Phe	Ala	Glu	Va1 255	Ser
Lys	Leu	Val	Thr 260	Asp	Leu	Thr	Lys	Val 265	His	Thr	Glu	Суз	Cys 270	His	Gly
Asp	Leu	Leu 275	Glu	Cys	Ala	Asp	Asp 280	Arg	Ala	Asp	Leu	Ala 285	Lys	Tyr	Ile
Cys	Glu 290	Asn	Gln	Asp	Ser	Ile 295	Ser	Ser	Lys	Leu	Lys 300	Glu	Cys	Cys	Glu
Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Va1	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met	Phe	Leu	Tyr	Glu	Tyr	Ala	Arg	Arg	His	Pro	Asp	Tyr	Ser	Val	Val

360

365

355

680

Met Leu Lys Leu Asp Thr Arg Ile Lys Thr Arg Lys Asn

645

Ser Glu Cys Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Lys Gly Arg

Arg Phe Cys Ala Asn Pro Ser Asp Lys Gln Val Gln Val Cys Met Arg

650

- <210> 1653
- <211> 682
- <212> PRT
- <213> Homo sapiens
- <400> 1653
- Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15
- Leu Gly Ser Gln Ala Asp Arg Phe His Ala Thr Ser Ala Asp Cys Cys 20 25 30
- Ile Ser Tyr Thr Pro Arg Ser Ile Pro Cys Ser Leu Leu Glu Ser Tyr $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Phe Glu Thr Asn Ser Glu Cys Ser Lys Pro Gly Val Ile Phe Leu Thr 50 60
- Lys Lys Gly Arg Arg Phe Cys Ala Asn Pro Ser Asp Lys Gln Val Gln 65 70 75 80
- Val Cys Met Arg Met Leu Lys Leu Asp Thr Arg Ile Lys Thr Arg Lys
 85 90 95
- Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly 100 105 110
- Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu 115 120 125
- Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr 130 135 140
- Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp 145 150 155 160
- Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr 165 170 175
- Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu 180 185 190
- Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn 195 200 205
- Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe 210 215 220
- His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala 225 230 235 240
- Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys 245 $^{-}$ 250 255
- Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala 260 265 270
- Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala 275 280 285
- Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly 290 295 300

Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr 330 Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala 425 Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His 455 Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu 470 475 Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly 490 Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly 520 525 Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr 615 Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln 630 635

Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys 645 650 655

Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu 660 665 670

Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 675 680

<210> 1654

<211> 680

<212> PRT

<213> Homo sapiens

<400> 1654

Met Asn Ile Phe Tyr Ile Phe Leu Phe Leu Leu Ser Phe Val Gln Gly 1 5 10 15

Leu Glu His Thr His Arg Arg Gly Ser Leu Asp Lys Arg Gly Pro Tyr
20 25 30

His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg 35 40 45

Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro 50 60

Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro 65 70 75 80

Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp 85 90 95

Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu
100 105 110

Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln 115 120 125

Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe 130 135 140

Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser 145 150 155 160

Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg 165 170 175

Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu

Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro 195 200 205

Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp 210 215 220

Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg 225 230 235 240

His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys 265 Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser 280 Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu 390 395 Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr 440 445 Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln 470 Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr 490 Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln 500 505 Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val 520 Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu 550 555 Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu

Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr 580 585 590

Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile 595 600 605

Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu 610 615 620

Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys 625 630 635 640

Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala 645 650 655

Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala 660 670

Ala Ser Gln Ala Ala Leu Gly Leu 675 680

<210> 1655

<211> 682

<212> PRT

<213> Homo sapiens

<400> 1655

Met Asn Ile Phe Tyr Ile Phe Leu Phe Leu Leu Ser Phe Val Gln Gly
1 5 10 15

Leu Glu His Thr His Arg Arg Gly Ser Leu Asp Lys Arg His Ala Gly
20 25 30

Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser 50 60

Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr 65 70 75 80

Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu 85 90 95

Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly 100 105 110

Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu 115 120 125

Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr 130 135 140

Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp 145 150 155 160

Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr 165 170 175

Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu

Pro	Glu	Arg 195	Asn	Glu	Cys	Phe	Leu 200	Gln	His	Lys	Asp	Asp 205	Asn	Pro	Asn
Leu	Pro 210	Arg	Leu	Val	Arg	Pro 215	Glu	Val	Asp	Val	Met 220	Cys	Thr	Ala	Phe
His 225	Asp	Asn	Glu	Glu	Thr 230	Phe	Leu	Lys	Lys	Туr 235	Leu	Tyr	Glu	Ile	Ala 240
Arg	Arg	His	Pro	Tyr 245	Phe	Tyr	Ala	Pro	Glu 250	Leu	Leu	Phe	Phe	Ala 255	Lys
Arg	Tyr	Lys	Ala 260	Ala	Phe	Thr	Glu	Cys 265	Cys	Gln	Ala	Ala	Asp 270	Lys	Ala
Ala	Cys	Leu 275	Leu	Pro	Lys	Leu	Asp 280	Glu	Leu	Arg	Asp	Glu 285	Gly	Lys	Ala
Ser	Ser 290	Ala	Lys	Gln	Arg	Leu 295	Lys	Cys	Ala	Ser	Leu 300	Gln	Lys	Phe	Gly
Glu 305	Arg	Ala	Phe	Lys	Ala 310	Trp	Ala	Val	Ala	Arg 315	Leu	Ser	Gln	Arg	Phe 320
Pro	Lys	Ala	Glu	Phe 325	Ala	Glu	Val	Ser	Lys 330	Leu	Val	Thr	Asp	Leu 335	Thr
Lys	Val	His	Thr 340	Glu	Cys	Cys	His	Gly 345	Asp	Leu	Leu	Glu	Суs 350	Ala	Asp
Asp	Arg	Ala 355	Asp	Leu	Ala	Lys	Туг 360	Ile	Cys	Glu	Asn	Gln 365	Asp	Ser	Ile
Ser	Ser 370	Lys	Leu	Lys	Glu	Cys 375	Суѕ	Glu	Lys	Pro	Leu 380	Leu	Glu	Lys	Ser
His 385	Cys	Ile	Ala	Glu	Val 390	Glu	Asn	Asp	Glu	Met 395	Pro	Ala	Asp	Leu	Pro 400
Ser	Leu	Ala	Ala	Asp 405	Phe	Val	Glu	Ser	Lys 410	Asp	Val	Cys	Lys	Asn 415	Tyr
Ala	Glu	Ala	Lys 420	Asp	Val	Phe	Leu	Gly 425	Met	Phe	Leu	Tyr	Glu 430	Tyr	Ala
Arg	Arg	His 435	Pro	Asp	Tyr	Ser	Val 440	Val	Leu	Leu	Leu	Arg 445	Leu	Ala	Lys
Thr	Туr 450	Glu	Thr	Thr	Leu	Glu 455	Lys	Cys	Cys	Ala	Ala 460	Ala	Asp	Pro	His
Glu 465	Cys	Tyr	Ala	Lys	Val 470	Phe	Asp	Glu	Phe	Lys 475	Pro	Leu	Val	Glu	Glu 480
Pro	Gln	Asn	Leu	Ile 485	Lys	Gln	Asn	Суѕ	Glu 490	Leu	Phe	Glu	Gln	Leu 495	Gly
Glu	Tyr	Lys	Phe 500	Gln	Asn	Ala	Leu	Leu 505	Val	Arg	Tyr	Thr	Lys 510	Lys	Val

Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly

515 520 525

Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro 530 540

- Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu 545 550 555 560
- His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu 565 570 575
- Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu 580 585 590
- Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala 595 600 605
- Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr 610 620
- Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln 625 630 635 640
- Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys 645 650 655
- Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Leu 660 665 670
- Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 675 680

<210> 1656

<211> 794

<212> PRT

<213> Homo sapiens

<400> 1656

- Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15
- Tyr Ser Arg Ser Leu Asp Lys Arg Met Ala Phe Thr Glu His Ser Pro 20 25 30
- Leu Thr Pro His Arg Arg Asp Leu Cys Ser Arg Ser Ile Trp Leu Ala 35 40 45
- Arg Lys Ile Arg Ser Asp Leu Thr Ala Leu Thr Glu Ser Tyr Val Lys
 50 55 60
- His Gln Gly Leu Asn Lys Asn Ile Asn Leu Asp Ser Ala Asp Gly Met 65 70 75 80
- Pro Val Ala Ser Thr Asp Gln Trp Ser Glu Leu Thr Glu Ala Glu Arg 85 90 95
- Leu Gln Glu Asn Leu Gln Ala Tyr Arg Thr Phe His Val Leu Leu Ala 100 105 110
- Arg Leu Leu Glu Asp Gln Gln Val His Phe Thr Pro Thr Glu Gly Asp 115 120 125

Phe	His 130	Gln	Ala	Ile	His	Thr 135	Leu	Leu	Leu	Gln	Val 140	Ala	Ala	Phe	Ala
Tyr 145	Gln	Ile	Glu	Glu	Leu 150	Met	Ile	Leu	Leu	Glu 155	Tyr	Lys	Ile	Pro	Arg 160
Asn	Glu	Ala	Asp	Gly 165	Met	Pro	Ile	Asn	Val 170	Gly	Asp	Gly	Gly	Leu 175	Phe
Glu	Lys	Lys	Leu 180	Trp	Gly	Leu	Lys	Val 185	Leu	Gln	Glu	Leu	Ser 190	Gln	Trp
Thr	Val	Arg 195	Ser	Ile	His	Asp	Leu 200	Arg	Phe	Ile	Ser	Ser 205	His	Gln	Thr
Gly	Asp 210	Ala	His	Lys	Ser	Glu 215	Val	Ala	His	Arg	Phe 220	Lys	Asp	Leu	Gly
Glu 225	Glu	Asn	Phe	Lys	Ala 230	Leu	Val	Leu	Ile	Ala 235	Phe	Ala	Gln	Tyr	Leu 240
Gln	Gln	Cys	Pro	Phe 245	Glu	Asp	His	Val	Lys 250	Leu	Val	Asn	Glu	Val 255	Thr
Glu	Phe	Ala	Lys 260	Thr	Cys	Val	Ala	Asp 265	Glu	Ser	Ala	Glu	Asn 270	Cys	Asp
Lys	Ser	Leu 275	His	Thr	Leu	Phe	Gly 280	Asp	Lys	Leu	Суз	Thr 285	Val	Ala	Thr
Leu	Arg 290	Glu	Thr	Tyr	Gly	G1u 295	Met	Ala	Asp	Cys	Cys 300	Ala	Lys	Gln	Glu
Pro 305	Glu	Arg	Asn	Glu	Cys 310	Phe	Leu	Gln	His	Lys 315	Asp	Asp	Asn	Pro	Asn 320
Leu	Pro	Arg	Leu	Val 325	Arg	Pro	Glu	Val	Asp 330	Val	Met	Cys	Thr	Ala 335	Phe
His	Asp	Asn	Glu 340	Glu	Thr	Phe	Leu	Lys 345	Lys	Tyr	Leu	Tyr	Glu 350	Ile	Ala
Arg	Arg	His 355	Pro	Tyr	Phe	Tyr	Ala 360	Pro	Glu	Leu	Leu	Phe 365	Phe	Ala	Lys
Arg	Tyr 370	Lys	Ala	Ala	Phe	Thr 375	Glu	Cys	Cys	Gln	Ala 380	Ala	Asp	Lys	Ala
Ala 385	Cys	Leu	Leu	Pro	Lys 390	Leu	Asp	Glu	Leu	Arg 395	Asp	Glu	Gly	Lys	Ala 400
Ser	Ser	Ala	Lys	Gln 405	Arg	Leu	Lys	Cys	Ala 410	Ser	Leu	Gln	Lys	Phe 415	Gly
Glu	Arg	Ala	Phe 420	Lys	Ala	Trp	Ala	Val 425	Ala	Arg	Leu	Ser	Gln 430	Arg	Phe
Pro	Lys	Ala 435	Glu	Phe	Ala	Glu	Val 440	Ser	Lys	Leu	Val	Thr 445	Asp	Leu	Thr
Lys	Val 450	His	Thr	Glu	Cys	Cys 455	His	Gly	Asp	Leu	Leu 460	Glu	Cys	Ala	Asp

Asp 465	Arg	Ala	Asp	Leu	Ala 470	Lys	Tyr	Ile	Cys	Glu 475	Asn	Gln	Asp	Ser	Ile 480
Ser	Ser	Lys	Leu	Lys 485	Glu	Cys	Cys	Glu	Lys 490	Pro	Leu	Leu	Glu	Lys 495	Ser
His	Cys	Ile	Ala 500	Glu	Val	Glu	Asn	Asp 505	Glu	Met	Pro	Ala	Asp 510	Leu	Pro
Ser	Leu	Ala 515	Ala	Asp	Phe	Val	Glu 520	Ser	Lys	Asp	Val	Cys 525	Lys	Asn	Tyr
Ala	Glu 530	Ala	Lys	Asp	Val	Phe 535	Leu	Gly	Met	Phe	Leu 540	Tyr	Glu	Tyr	Ala
Arg 545	Arg	His	Pro	Asp	Туr 550	Ser	Val	Val	Leu	Leu 555	Leu	Arg	Leu	Ala	Lys 560
Thr	Tyr	Glu	Thr	Thr 565	Leu	Glu	Lys	Cys	Cys 570	Ala	Ala	Ala	Asp	Pro 575	His
Glu	Cys	Tyr	Ala 580	Lys	Va1	Phe	Asp	Glu 585	Phe	Lys	Pro	Leu	Val 590	Glu	Glu
Pro	Gln	Asn 595	Leu	Ile	Lys	Gln	Asn 600	Cys	Glu	Leu	Phe	Glu 605	Gln	Leu	Gly
Glu	Tyr 610	Lys	Phe	Gln	Asn	Ala 615	Leu	Leu	Val	Arg	Tyr 620	Thr	Lys	Lys	Val
Pro 625	Gln	Val	Ser	Thr	Pro 630	Thr	Leu	Val	Glu	Val 635	Ser	Arg	Asn	Leu	Gly 640
Lys	Val	Gly	Ser	Lys 645	Суѕ	Cys	Lys	His	Pro 650	Glu	Ala	Lys	Arg	Met 655	Pro
Суѕ	Ala	Glu	Asp 660	Tyr	Leu	Ser	Val	Val 665	Leu	Asn	Gln	Leu	Cys 670	Val	Leu
His	Glu	Lys 675	Thr	Pro	Val	Ser	Asp 680	Arg	Val	Thr	Lys	Cys 685	Cys	Thr	Glu
Ser	Leu 690	Val	Asn	Arg	Arg	Pro 695	Cys	Phe	Ser	Ala	Leu 700	Glu	Val	Asp	Glu
Thr 705	Tyr	Val	Pro	Lys	Glu 710	Phe	Asn	Ala	Glu	Thr 715	Phe	Thr	Phe	His	Ala 720
Asp	Ile	Cys	Thr	Leu 725	Ser	Glu	Lys	Glu	Arg 730	Gln	Ile	Lys	Lys	Gln 735	Thr
Ala	Leu	Val	Glu 740	Leu	Val	Lys	His	Lys 745	Pro	Lys	Ala	Thr	Lys 750	Glu	Gln
Leu	Lys	Ala 755	Val	Met	qaA	Asp	Phe 760	Ala	Ala	Phe	Val	Glu 765	Lys	Cys	Сув
Lys	Ala 770	Asp	qaA	Lys	Glu	Thr 775	Cys	Phe	Ala	Glu	Glu 780	Gly	Lys	Lys	Leu
Val 785	Ala	Ala	Ser	Gln	Ala 790	Ala	Leu	Gly	Leu						

<210> 1657

<211> 794

<212> PRT

<213> Homo sapiens

<400> 1657

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys 210 215 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val 225 230 235 240

Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 255

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly
260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile 275 280 285

Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu

Lys 305	Pro	Leu	Leu	Glu	Lys 310	Ser	His	Cys	Ile	Ala 315	Glu	Val	Glu	Asn	Asp 320
Glu	Met	Pro	Ala	Asp 325	Leu	Pro	Ser	Leu	Ala 330	Ala	Asp	Phe	Val	Glu 335	Ser
Lys	Asp	Val	Cys 340	Lys	Asn	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly

300

295

290

Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val 355 360 365

Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys 370 380

Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu 385 390 395 400

Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys $405 \hspace{1.5cm} 410 \hspace{1.5cm} 415 \hspace{1.5cm}$

Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu 420 425 430

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val 435 440 445

Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His 450 455 460

Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val 465 470 475 480

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg 485 490 495

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 500 505 510

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 530 535 540

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
595 600 605

Leu Met Ala Phe Thr Glu His Ser Pro Leu Thr Pro His Arg Arg Asp 610 620

Leu Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys Ile Arg Ser Asp Leu

Thr Ala Leu Thr Glu Ser Tyr Val Lys His Gln Gly Leu Asn Lys Asn 645 650 655

Ile Asn Leu Asp Ser Ala Asp Gly Met Pro Val Ala Ser Thr Asp Gln 660 665 670

Trp Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln Glu Asn Leu Gln Ala 675 680 685

Tyr Arg Thr Phe His Val Leu Leu Ala Arg Leu Leu Glu Asp Gln Gln 690 695 700

Val His Phe Thr Pro Thr Glu Gly Asp Phe His Gln Ala Ile His Thr 705 710 715 720

Leu Leu Gln Val Ala Ala Phe Ala Tyr Gln Ile Glu Glu Leu Met 725 730 735

Ile Leu Leu Glu Tyr Lys Ile Pro Arg Asn Glu Ala Asp Gly Met Pro 740 745 750

Ile Asn Val Gly Asp Gly Gly Leu Phe Glu Lys Lys Leu Trp Gly Leu
755 760 765

Lys Val Leu Gln Glu Leu Ser Gln Trp Thr Val Arg Ser Ile His Asp 770 780

Leu Arg Phe Ile Ser Ser His Gln Thr Gly 785

<210> 1658

<211> 892

<212> PRT

<213> Homo sapiens

<400> 1658

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln 115 120 125 His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val 135 Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro 170 Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser 245 250 Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu 295 Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly 340 Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His

Pro 465	Glu	Ala	Lys	Arg	Met 470	Pro	Cys	Ala	Glu	Asp 475	Tyr	Leu	Ser	Val	Val 480
Leu	Asn	G1n	Leu	Cys 485	Val	Leu	His	Glu	Lys 490	Thr	Pro	Val	Ser	Asp 495	Arg
Val	Thr	Lys	Суs 500	Cys	Thr	Glu	Ser	Leu 505	Val	Asn	Arg	Arg	Pro 510	Cys	Phe
Ser	Ala	Leu 515	Glu	Val	Asp	Glu	Thr 520	Tyr	Val	Pro	Lys	Glu 525	Phe	Asn	Ala
Glu	Thr 530	Phe	Thr	Phe	His	Ala 535	Asp	Ile	Cys	Thr	Leu 540	Ser	Glu	Lys	Glu
Arg 545	Gln	Ile	Lys	Lys	Gln 550	Thr	Ala	Leu	Val	Glu 555	Leu	Val	Lys	His	Lys 560
Pro	Lys	Ala	Thr	Lys 565	Glu	Gln	Leu	Lys	Ala 570	Val	Met	Asp	Asp	Phe 575	Ala
Ala	Phe	Val	Glu 580	Lys	Cys	Cys	Lys	Ala 585	Asp	Asp	Lys	Glu	Thr 590	Cys	Phe
Ala	Gĺu	Glu 595	Gly	Lys	Lys	Leu	Val 600	Ala	Ala	Ser	Gln	Ala 605	Ala	Leu	Gly
Leu	Cys 610	Pro	Gly	Ala	Cys	Val 615	Cys	Tyr	Asn	Glu	Pro 620	Lys	Val	Thr	Thr
Ser 625	Cys	Pro	Gln	Gln	Gly 630	Leu	Gln	Ala	Val	Pro 635	Val	Gly	Ile	Pro	Ala 640
Ala	Ser	Gln	Arg	Ile 645	Phe	Leu	His	Gly	Asn 650	Arg	Ile	Ser	His	Val 655	Pro
Ala	Ala	Ser	Phe 660	Arg	Ala	Сув	Arg	Asn 665	Leu	Thr	Ile	Leu	Trp 670	Leu	His
Ser	Asn	Val 675	Leu	Ala	Arg	Ile	Asp 680	Ala	Ala	Ala	Phe	Thr 685	Gly	Leu	Ala
Leu	Leu 690	Glu	Gln	Leu	Asp	Leu 695	Ser	Asp	Asn	Ala	Gln 700	Leu	Arg	Ser	Val
Asp 705	Pro	Ala	Thr	Phe	His 710	Gly	Leu	Gly	Arg	Leu 715	His	Thr	Leu	His	Leu 720
Asp	Arg	Cys	Gly	Leu 725	Gln	Glu	Leu	Gly	Pro 730	Gly	Leu	Phe	Arg	Gly 735	Leu
Ala	Ala	Leu	Gln 740	Tyr	Leu	туr	Leu	Gln 745	Asp	Asn	Ala	Leu	Gln 750	Ala	Leu
Pro	Asp	Asp 755	Thr	Phe	Arg	Asp	Leu 760	Gly	Asn	Leu	Thr	His 765	Leu	Phe	Leu
His	Gly 770	Asn	Arg	Ile	Ser	Ser 775	Val	Pro	Glu	Arg	Ala 780	Phe	Arg	Gly	Leu
His 785	Ser	Leu	Asp	Arg	Leu 790	Leu	Leu	His	Gln	Asn 795	Arg	Val	Ala	His	Val 800

- His Pro His Ala Phe Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu 805 810 815
- Phe Ala Asn Asn Leu Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu 820 825 830
- Arg Ala Leu Gln Tyr Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp 835 840 845
- Cys Arg Ala Arg Pro Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser 850 860
- Ser Ser Glu Val Pro Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp 865 870 875 880
- Leu Lys Arg Leu Ala Ala Asn Asp Leu Gln Gly Cys 885 890

<210> 1659

<211> 894

<212> PRT

<213> Homo sapiens

<400> 1659

Met Lys Arg Ala Ser Ala Gly Gly Ser Arg Leu Leu Ala Trp Val Leu 1 5 10 15

- Trp Leu Gln Ala Trp Gln Val Ala Ala Pro Cys Pro Gly Ala Cys Val 20 25 30
- Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln Gly Leu 35 40 45
- Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile Phe Leu 50 55 60
- His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg Ala Cys
 65 70 75 80
- Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala Arg Ile 85 90 95
- Asp Ala Ala Ala Phe Thr Gly Leu Ala Leu Leu Glu Gln Leu Asp Leu
 100 105 110
- Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe His Gly 115 120 125
- Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu Gln Glu 130 135 140
- Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr Leu Tyr 145 150 155 160
- Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe Arg Asp 165 170 175
- Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile Ser Ser 180 185 190

Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg Leu Leu 200 Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe Arg Asp 215 Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu Ser Ala 230 235 Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro Cys Ser 280 Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala Ala Asn Asp Leu Gln Gly Cys Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val 345 Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys 395 Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met 420 425 Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu 440 Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu 455 Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala 470 Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp 490 Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu 505 Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu 520

Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val 535 Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn 570 Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val 615 Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro 680 Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser 730 Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln 760 Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe 810 Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile 825 Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala 840 Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val 855 860

Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu 865 870 875 880

Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 885 890

<210> 1660

<211> 768

<212> PRT

<213> Homo sapiens

<400> 1660

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ala Gly Val 1 5 10 15

Ser Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu 20 25 30

Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr 35 40 45

Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val
50 55 60

Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys 65 70 75 80

Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala 85 90 95

Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln 100 105 110

Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro 115 120 125

Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala 130 135 140

Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile 145 150 155 160

Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala 165 170 175

Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys 180 185 190

Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys
195 200 205

Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe 210 215 220

Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg 225 230 235 240

Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu 245 250 255

Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala

As	g	Asp	Arg 275	Ala	Asp	Leu	Ala	Lys 280	Tyr	Ile	Cys	Glu	Asn 285	Gln	Asp	Ser
I	le	Ser 290	Ser	Lys	Leu	Lys	Glu 295	Cys	Cys	Glu	Lys	Pro 300	Leu	Leu	Glu	Lys
	er 05	His	Cys	Ile	Ala	Glu 310	Val	Glu	Asn	qaA	Glu 315	Met	Pro	Ala	Asp	Leu 320
Pı	0	Ser	Leu	Ala	Ala 325	qaA	Phe	Val	Glu	Ser 330	Lys	Asp	Val	Cys	Lys 335	Asn
T	/r	Ala	Glu	Ala 340	Lys	Asp	Val	Phe	Leu 345	Gly	Met	Phe	Leu	Tyr 350	Glu	Tyr
A	la	Arg	Arg 355	His	Pro	Asp	Tyr	Ser 360	Val	Val	Leu	Leu	Leu 365	Arg	Leu	Ala
L	/S	Thr 370	Tyr	Glu	Thr	Thr	Leu 375	Glu	Lys	Cys	Cys	Ala 380	Ala	Ala	Asp	Pro
	is 35	Glu	Cys	Tyr	Ala	Lys 390	Val	Phe	Asp	Glu	Phe 395	Lys	Pro	Leu	Val	Glu 400
G:	lu	Pro	Gln	Asn	Leu 405	Ile	Lys	Gln	Asn	Cys 410	Glu	Leu	Phe	Glu	Gln 415	Leu
G.	ly	Glu	Tyr	Lys 420	Phe	Gln	Asn	Ala	Leu 425	Leu	Val	Arg	Tyr	Thr 430	Lys	Lys
Vá	al	Pro	Gln 435	Val	Ser	Thr	Pro	Thr 440	Leu	Val	Glu	Val	Ser 445	Arg	Asn	Leu
G:	ly	Lys 450	Va1	Gly	Ser	Lys	Cys 455	Cys	Lys	His	Pro	Glu 460	Ala	Lys	Arg	Met
	ro 65	Cys	Ala	Glu	Asp	Tyr 470	Leu	Ser	Val	Val	Leu 475	Asn	Gln	Leu	Cys	Val 480
L	eu	His	Glu	Lys	Thr 485	Pro	Va1	Ser	Asp	Arg 490	Val	Thr	Lys	Cys	Cys 495	Thr
G.	lu	Ser	Leu	Val 500	Asn	Arg	Arg	Pro	Cys 505	Phe	Ser	Ala	Leu	Glu 510	Val	Asp

265

270

260

Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys 580 585 590

Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His

Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln

Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu

Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys

520

550

535

555

595 600 605

Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 610 615 620

Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 625 630 635 640

Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 645 650 655

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 660 665 670

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 675 680 685

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 690 695 700

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 705 710 715 720

Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile
725 730 735

Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 740 745 750

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 755 760 765

<210> 1661

<211> 768

<212> PRT

<213> Homo sapiens

<400> 1661

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Gly Val
1 5 10 15

Ser Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu 20 25 30

Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr 35 40 45

Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val
50 55 60

Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys 65, 70 75 80

Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala 85 90 95

Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln
100 105 110

Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro 115 120 125

Asn	Leu 130	Pro	Arg	Leu	Val	Arg 135	Pro	Glu	Val	Asp	Val 140	Met	Cys	Thr	Ala
Phe 145	His	Asp	Asn	Glu	Glu 150	Thr	Phe	Leu	Lys	Lys 155	Tyr	Leu	Tyr	Glu	Ile 160
Ala	Arg	Arg	His	Pro 165	Tyr	Phe	Tyr	Ala	Pro 170	Glu	Leu	Leu	Phe	Phe 175	Ala
Lys	Arg	Tyr	Lys 180	Ala	Ala	Phe	Thr	Glu 185	Cys	Cys	Gln	Ala	Ala 190	Asp	Lys
Ala	Ala	Cys 195	Leu	Leu	Pro	Lys	Leu 200	Asp	Glu	Leu	Arg	Asp 205	Glu	Gly	Lys
Ala	Ser 210	Ser	Ala	Lys	Gln	Arg 215	Leu	Lys	Cys	Ala	Ser 220	Leu	Gln	Lys	Phe
Gly 225	Glu	Arg	Ala	Phe	Lys 230	Ala	Trp	Ala	Val	Ala 235	Arg	Leu	Ser	Gln	Arg 240
Phe	Pro	Lys	Ala	Glu 245	Phe	Ala	Glu	Val	Ser 250	Lys	Leu	Val	Thr	Asp 255	Leu
Thr	Lys	Val	His 260	Thr	Glu	Cys	Cys	His 265	Gly	Asp	Leu	Leu	Glu 270	Cys	Ala
Asp	Asp	Arg 275	Ala	Asp	Leu	Ala	Lys 280	Tyr	Ile	Cys	Glu	Asn 285	Gln	Asp	Ser
Ile	Ser 290	Ser	Lys	Leu	Lys	Glu 295	Cys	Cys	Glu	Lys	Pro 300	Leu	Leu	Glu	Lys
Ser 305	His	Cys	Ile	Ala	Glu 310	Val	Glu	Asn	Asp	Glu 315	Met	Pro	Ala	Asp	Leu 320
Pro	Ser	Leu	Ala	Ala 325	Asp	Phe	Val	Glu	Ser 330	Lys	Asp	Val	Cys	Lys 335	Asn
Tyr	Ala	Glu	Ala 340	Lys	Asp	Val	Phe	Leu 345	Gly	Met	Phe	Leu	Туr 350	Glu	Tyr
Ala	Arg	Arg 355	His	Pro	Asp	Tyr	Ser 360	Val	Val	Leu	Leu	Leu 365	Arg	Leu	Ala
Lys	Thr 370	Tyr	Glu	Thr	Thr	Leu 375	Glu	Lys	Cys	Cys	Ala 380	Ala	Ala	Asp	Pro
His 385	Glu	Cys	Туr	Ala	Lys 390	Val	Phe	Asp	Glu	Phe 395	Lys	Pro	Leu	Val	Glu 400
Glu	Pro	Gln	Asn	Leu 405	Ile	Lys	Gln	Asn	Cys 410	Glu	Leu	Phe	Glu	Gln 415	Leu
Gly	Glu	Tyr	Lys 420	Phe	Gln	Asn	Ala	Leu 425	Leu	Va1	Arg	Tyr	Thr 430	Lys	Lys
Val	Pro	Gln 435	Val	Ser	Thr	Pro	Thr 440	Leu	Val	Glu	Val	Ser 445	Arg	Asn	Leu
Gly	Lys 450	Val	Gly	Ser	Lys	Cys 455	Cys	Lys	His	Pro	Glu 460	Ala	Lys	Arg	Met

Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val 475 Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr 490 Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His 520 Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln 535 Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys 570 Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu Ala Pro Pro Arg Leu 600 Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 615 Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 650 Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 665 Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 680 Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 695 Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 725 730 Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 760

<210> 1662

<211> 768

<212> PRT

<213> Homo sapiens

<400> 1662 Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Gly Gly Val Ser Gly Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro 120 Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala 170 Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys 200 Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe 215 Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg 235 Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu 250 Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser 280 Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn 330

335

325

Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr 345 Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala 360 Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro 375 His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu 410 Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met 455 Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr 490 Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp 505 Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln 535 Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys 570 Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 615 Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 650

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu

660 665 670

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 675 680 685

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 690 695 700

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 705 710 715 720

Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 725 730 735

Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 740 745 750

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp
755 760 765

<210> 1663

<211> 664

<212> PRT

<213> Homo sapiens

<400> 1663

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Phe Val Asn Gln His Leu Cys Gly Ser His Leu
20 25 30

Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Lys Thr Glu Ala Glu Asp Leu Gln Val Gly Ile Val Glu Gln Cys 50 55 60

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn Asp 65 70 75 80

Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu 85 90 95

Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln 100 105 110

Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe

Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser 130 135 140

Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg 145 150 155 160

Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu 165 170 175

Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro Asn Leu Pro

Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg 215 His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr 235 Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser 265 Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val 315 His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser 345 Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg 410 His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr 425 Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr 470 475 Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala 515 520 525

Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu 530 535 540

Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu 545 550 555 560

Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr 565 570 575

Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile 580 585 590

Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu 595 600 605

Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys 610 620

Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala 625 630 635 640

Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala 645 650 655

Ala Ser Gln Ala Ala Leu Gly Leu 660

<210> 1664

<211> 662

<212> PRT

<213> Homo sapiens

<400> 1664

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
1 5 10 15

Ile Ser Ala Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu 20 25 30

Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys 35 40 45

Thr Glu Ala Glu Asp Leu Gln Val Gly Ile Val Glu Gln Cys Cys Thr 50 55 60

Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn Asp Ala His 65 70 75 80

Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe 85 90 95

Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 100 105 110

Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 115 120 125

Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His 130 135 140

Thr 145	Leu	Phe	Gly	Asp	Lys 150	Leu	Cys	Thr	Val	Ala 155	Thr	Leu	Arg	Glu	Thr 160
Tyr	Gly	Glu	Met	Ala 165	Asp	Cys	Cys	Ala	Lys 170	Gln	Glu	Pro	Glu	Arg 175	Asn
Glu	Cys	Phe	Leu 180	Gln	His	Lys	Asp	Asp 185	Asn	Pro	Asn	Leu	Pro 190	Arg	Leu
Val	Arg	Pro 195	Glu	Val	Asp	Val	Met 200	Cys	Thr	Ala	Phe	His 205	Asp	Asn	Glu
Glu	Thr 210	Phe	Leu	Lys	Lys	Туr 215	Leu	Tyr	Glu	Ile	Ala 220	Arg	Arg	His	Pro
Tyr 225	Phe	Tyr	Ala	Pro	Glu 230	Leu	Leu	Phe	Phe	Ala 235	Lys	Arg	Tyr	Lys	Ala 240
Ala	Phe	Thr	Glu	Cys 245	Cys	Gln	Ala	Ala	Asp 250	Lys	Ala	Ala	Cys	Leu 255	Leu
Pro	Lys	Leu	Asp 260	Glu	Leu	Arg	Asp	G1u 265	Gly	Lys	Ala	Ser	Ser 270	Ala	Lys
Gln	Arg	Leu 275	Lys	Суѕ	Ala	Ser	Leu 280	Gln	Lys	Phe	Gly	G1u 285	Arg	Ala	Phe
Lys	Ala 290	Trp	Ala	Val	Ala	Arg 295	Leu	Ser	Gln	Arg	Phe 300	Pro	Lys	Ala	Glu
Phe 305	Ala	Glu	Val	Ser	Lys 310	Leu	Val	Thr	Asp	Leu 315	Thr	Lys	Val	His	Thr 320
Glu	Cys	Суѕ	His	Gly 325	Asp	Leu	Leu	Glu	Cys 330	Ala	Asp	Asp	Arg	Ala 335	Asp
Leu	Ala	Lys	Tyr 340	Ile	Cys	Glu	Asn	Gln 345	Asp	Ser	Ile	Ser	Ser 350	Lys	Leu
Lys	Glu	Cys 355	Cys	Glu	Lys	Pro	Leu 360	Leu	Glu	Lys	Ser	His 365	Суѕ	Ile	Ala
Glu	Val 370	Glu	Asn	Asp	Glu	Met 375	Pro	Ala	Asp	Leu	Pro 380	Ser	Leu	Ala	Ala
Asp 385	Phe	Val	Glu	Ser	Lys 390	Asp	Val	Суѕ	Lys	Asn 395	Tyr	Ala	Glu	Ala	Lys 400
Asp	Val	Phe	Leu	Gly 405	Met	Phe	Leu	Tyr	Glu 410	Tyr	Ala	Arg	Arg	His 415	Pro
Asp	Tyr	Ser	Val 420	Val	Leu	Leu	Leu	Arg 425	Leu	Ala	Lys	Thr	Tyr 430	Glu	Thr
Thr	Leu	Glu 435	Lys	Cys	Cys	Ala	Ala 440	Ala	Asp	Pro	His	Glu 445	Cys	Tyr	Ala
Lys	Val 450	Phe	Asp	Glu	Phe	Lys 455	Pro	Leu	Val	Glu	Glu 460	Pro	Gln	Asn	Leu
Ile 465	Lys	Gln	Asn	Суѕ	Glu 470	Leu	Phe	Glu	Gln	Leu 475	Gly	Glu	Tyr	Lys	Phe 480

Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 485 490 495

Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser 500 505 510

Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 515 520 525

Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr 530 540

Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn 545 550 555 560

Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 565 570 575

Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 580 585 590

Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu 595 600 605

Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val 610 615 620

Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 625 630 635 640

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser $645 \hspace{1.5cm} 650 \hspace{1.5cm} 655$

Gln Ala Ala Leu Gly Leu 660

<210> 1665

<211> 678

<212> PRT

<213> Homo sapiens

<400> 1665

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ala Pro Ile Gly Pro Tyr His Pro

Ser Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His
85 90 95

Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 120 Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 135 Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn 185 Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 250 Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe 295 Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr 330 Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp 345 Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala 375 Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro 425

Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Asp Pro His Glu Cys Tyr Ala 455 Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu 470 465 475 Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 505 Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 535 Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 585 Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val 630 635 Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 660 665

<210> 1666

<211> 678

<212> PRT

<213> Homo sapiens

Gln Ala Ala Leu Gly Leu 675

<400> 1666

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ala Ser Leu Gly Pro Tyr His Pro 20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg

40

45

35

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 120 Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 135 Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr 170 Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 250 Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys 280 Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr 325 330 Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu 360

Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala

370 375 380

Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala 395 Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys 405 410 Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro 425 Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala 455 Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe 490 Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 505 Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 535 Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu 615 Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 660 665 670

Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp

Gln Ala Ala Leu Gly Leu 675

<210> 1667 <211> 678

Ĺ

650

- <212> PRT
- <213> Homo sapiens
- <400> 1667
- Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15
- Tyr Ser Arg Ser Leu Asp Lys Arg Ser Pro Tyr Gly Pro Tyr His Pro 20 25 30
- Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40
- Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
 50 55 60
- Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80
- Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His
- Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe 100 105 110
- Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 115 120 125
- Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 130 135 140
- Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His 145 150 155 160
- Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr 165 170 175
- Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn 180 185 190
- Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu 195 200 205
- Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu 210 215 220
- Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro 225 230 235 240
- Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala 245 . 250 255
- Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu 260 265 270
- Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys 275 280 285
- Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe 290 295 300
- Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu 305 310 315 320

Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr 330 Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu 360 Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala 375 Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro 425 Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr 435 440 445 Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala 455 Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe 485 490 Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 505 Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 535 Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 580 585 Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 600 Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 650

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 660 665 670

Gln Ala Ala Leu Gly Leu 675

<210> 1668

<211> 679

<212> PRT

<213> Homo sapiens

<400> 1668

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Met Ser Pro Tyr Gly Pro Tyr His 20 25 30

Pro Ser Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln 35 40 45

Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly 50 55 60

Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser 65 70 75 80

Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala 85 90 95

His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn 100 105 110

Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys 115 120 125

Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala 130 135 140

Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu 145 150 155 160

His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu 165 170 175

Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg 180 185 190

Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg 195 200 205

Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn 210 220

Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His 225 230 235 240

Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys 245 250 255 Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala 280 Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala 295 Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys 360 Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala 410 Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr 455 Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys 490 Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly 520 Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val 570 Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val

Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys 595 600 605

Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val 610 620

Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala 625 630 635 640

Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp 645 650 655

Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala 660 665 670

Ser Gln Ala Ala Leu Gly Leu 675

<210> 1669

<211> 680

<212> PRT

<213> Homo sapiens

<400> 1669

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Cys Pro Tyr Ser Cys Gly Pro Tyr 20 25 30

His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg
35 40 45

Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro 50 60

Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro 65 70 75 80

Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp 85 90 95

Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu 100 105 110

Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln
115 120 125

Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe 130 135 140

Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser 145 150 155 160

Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg 165 170 175

Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu 180 185 190

Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asn Pro Asn Leu Pro

195		200	205
Arg Leu Val Ar	g Pro Glu Val	Asp Val Met Cys	Thr Ala Phe His Asp
210	215		220
Asn Glu Glu Th	nr Phe Leu Lys	Lys Tyr Leu Tyr	Glu Ile Ala Arg Arg
	230	235	240
His Pro Tyr Ph	ne Tyr Ala Pro	Glu Leu Leu Phe	Phe Ala Lys Arg Tyr
	245	250	255
Lys Ala Ala Ph	_	Cys Gln Ala Ala	Asp Lys Ala Ala Cys
26		265	270
Leu Leu Pro Ly	vs Leu Asp Glu	Leu Arg Asp Glu	Gly Lys Ala Ser Ser
275		280	285
Ala Lys Gln Ar	g Leu Lys Cys	Ala Ser Leu Gln	Lys Phe Gly Glu Arg
290	295		300
Ala Phe Lys Al	a Trp Ala Val	Ala Arg Leu Ser	Gln Arg Phe Pro Lys 320
305	310	315	
Ala Glu Phe Al	a Glu Val Ser 325	Lys Leu Val Thr 330	Asp Leu Thr Lys Val
His Thr Glu Cy		Asp Leu Leu Glu	Cys Ala Asp Asp Arg
34		345	350
Ala Asp Leu Al	a Lys Tyr Ile	Cys Glu Asn Gln	Asp Ser Ile Ser Ser
355		360	365
Lys Leu Lys Gl	u Cys Cys Glu	Lys Pro Leu Leu	Glu Lys Ser His Cys
370	375		380
Ile Ala Glu Va	al Glu Asn Asp	Glu Met Pro Ala	Asp Leu Pro Ser Leu
385	390	395	400
Ala Ala Asp Ph	ne Val Glu Ser	Lys Asp Val Cys	Lys Asn Tyr Ala Glu
	405	410	415
Ala Lys Asp Va		Met Phe Leu Tyr	Glu Tyr Ala Arg Arg
42		425	430
His Pro Asp Ty	yr Ser Val Val	Leu Leu Leu Arg	Leu Ala Lys Thr Tyr
435		440	445
Glu Thr Thr Le	eu Glu Lys Cys 455	Cys Ala Ala Ala	Asp Pro His Glu Cys 460
Tyr Ala Lys Va	al Phe Asp Glu	Phe Lys Pro Leu	Val Glu Glu Pro Gln
465	470	475	480
Asn Leu Ile Ly	ys Gln Asn Cys	Glu Leu Phe Glu	Gln Leu Gly Glu Tyr
	485	490	495
Lys Phe Gln As		Val Arg Tyr Thr 505	Lys Lys Val Pro Gln 510
Val Ser Thr Pr	o Thr Leu Val	Glu Val Ser Arg	Asn Leu Gly Lys Val
515		520	525

Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala

530 535 540

Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu 545 550 555 560

Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu 565 570 575

Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr 580 585 590

Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile 595 600 605

Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu 610 620

Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys 625 630 635 640

Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala 645 650 655

Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala 660 665 670

Ala Ser Gln Ala Ala Leu Gly Leu 675 680

<210> 1670

<211> 678

<212> PRT

<213> Homo sapiens

<400> 1670

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Gly Pro Tyr Gly Pro Tyr His Pro 20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn Asp Ala His
85 90 95

Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe 100 105 110

Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro 115 120 125

Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys 130 135 140

Thr 145	Cys	Val	Ala	Asp	Glu 150	Ser	Ala	Glu	Asn	Cys 155	Asp	Lys	Ser	Leu	His 160
Thr	Leu	Phe	Gly	Asp 165	Lys	Leu	Cys	Thr	Val 170	Ala	Thr	Leu	Arg	Glu 175	Thr
Tyr	Gly	Glu	Met 180	Ala	Asp	Cys	Cys	Ala 185	Lys	Gln	Glu	Pro	Glu 190	Arg	Asn
Glu	Cys	Phe 195	Leu	Gln	His	Lys	Asp 200	Asp	Asn	Pro	Asn	Leu 205	Pro	Arg	Leu
Val	Arg 210	Pro	Glu	Val	Asp	Va1 215	Met	Cys	Thr	Ala	Phe 220	His	Asp	Asn	Glu
Glu 225	Thr	Phe	Leu	Lys	Lys 230	Tyr	Leu	Tyr	Glu	Ile 235	Ala	Arg	Arg	His	Pro 240
Tyr	Phe	Tyr	Ala	Pro 245	Glu	Leu	Leu	Phe	Phe 250	Ala	Lys	Arg	Tyr	Lys 255	Ala
Ala	Phe	Thr	Glu 260	Cys	Cys	Gln	Ala	Ala 265	Asp	Lys	Ala	Ala	Cys 270	Leu	Leu
Pro	Lys	Leu 275	Asp	Glu	Leu	Arg	Asp 280	Glu	Gly	Lys	Ala	Ser 285	Ser	Ala	Lys
Gln	Arg 290	Leu	Lys	Cys	Ala	Ser 295	Leu	Gln	Lys	Phe	Gly 300	Glu	Arg	Ala	Phe
Lys 305	Ala	Trp	Ala	Val	Ala 310	Arg	Leu	Ser	Gln	Arg 315	Phe	Pro	Lys	Ala	Glu 320
Phe	Ala	Glu	Val	Ser 325	Lys	Leu	Val	Thr	Asp 330	Leu	Thr	Lys	Val	His 335	Thr
Glu	Cys	Суѕ	His 340	Gly	Asp	Leu	Leu	Glu 345	Cys	Ala	Asp	Asp	Arg 350	Ala	Asp
Leu	Ala	Lys 355	Tyr	Ile	Cys	Glu	Asn 360	Gln	Asp	Ser	Ile	Ser 365	Ser	Lys	Leu
Lys	Glu 370	Cys	Cys	Glu	Lys	Pro 375	Leu	Leu	Glu	Lys	Ser 380	His	Cys	Ile	Ala
Glu 385	Val	Glu	Asn	Asp	Glu 390	Met	Pro	Ala	Asp	Leu 395	Pro	Ser	Leu	Ala	Ala 400
Asp	Phe	Val	Glu	Ser 405	Lys	Asp	Val	Cys	Lys 410	Asn	Tyr	Ala	Glu	Ala 415	Lys
Asp	Val	Phe	Leu 420	Gly	Met	Phe	Leu	Tyr 425	Glu	Tyr	Ala	Arg	Arg 430	His	Pro
Asp	Tyr	Ser 435	Val	Val	Leu	Leu	Leu 440	Arg	Leu	Ala	Lys	Thr 445	Tyr	Glu	Thr
Thr	Leu 450	Glu	Lys	Cys	Cys	Ala 455	Ala	Ala	Asp	Pro	His 460	Glu	Cys	Tyr	Ala
Lys 465	Val	Phe	Asp	Glu	Phe 470	Lys	Pro	Leu	Val	Glu 475	Glu	Pro	Gln	Asn	Leu 480

Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe
485 490 495

Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser 500 505 510

Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser 515 520 525

Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp 530 535 540

Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr 545 550 555 560

Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn 565 570 575

Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro 580 585 590

Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr 595 600 605

Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu 610 615 620

Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val 625 630 635 640

Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 645 650 655

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser $660 \hspace{1.5cm} 665 \hspace{1.5cm} 670$

Gln Ala Ala Leu Gly Leu 675

<210> 1671

<211> 657

<212> PRT

<213> Homo sapiens

<400> 1671

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala

Tyr Ser Arg Ser Leu Asp Lys Arg Val Pro Ile Tyr Glu Lys Lys Tyr 20 25 30

Gly Gln Val Pro Met Cys Asp Ala Gly Glu Gln Cys Ala Val Arg Lys 45

Gly Ala Arg Ile Gly Lys Leu Cys Asp Cys Pro Arg Gly Thr Ser Cys 50 60

Asn Ser Phe Leu Leu Lys Cys Leu Asp Ala His Lys Ser Glu Val Ala 65 70 75 80

His Arg Phe Ly	s Asp Leu 85	Gly Glu	Glu Asn 90	Phe Lys	Ala Le	ı Val 95	Leu
Ile Ala Phe Al		Leu Gln	Gln Cys 105	Pro Phe	Glu Ası		Val
Lys Leu Val As 115	n Glu Val	Thr Glu 120	Phe Ala	Lys Thr	Cys Vai	l Ala	Asp
Glu Ser Ala Gl 130	u Asn Cys	Asp Lys 135	Ser Leu	His Thr 140	Leu Pho	e Gly	Asp
Lys Leu Cys Th 145	r Val Ala 150	Thr Leu	Arg Glu	Thr Tyr 155	Gly Gl	ı Met	Ala 160
Asp Cys Cys Al	a Lys Gln 165	Glu Pro	Glu Arg 170	Asn Glu	Cys Pho	175	Gln
His Lys Asp As 18	_	Asn Leu	Pro Arg 185	Leu Val	Arg Pro		Val
Asp Val Met Cy 195	s Thr Ala	Phe His 200	Asp Asn	Glu Glu	Thr Pho 205	e Leu	Lys
Lys Tyr Leu Ty 210	r Glu Ile	Ala Arg 215	Arg His	Pro Tyr 220	Phe Ty:	c Ala	Pro
Glu Leu Leu Ph 225	e Phe Ala 230	Lys Arg	Tyr Lys	Ala Ala 235	Phe Th	r Glu	Cys 240
Cys Gln Ala Al	a Asp Lys 245	Ala Ala	Cys Leu 250	Leu Pro	Lys Le	255	Glu
Leu Arg Asp Gl		Ala Ser	Ser Ala 265	Lys Gln	Arg Let 27		Cys
Ala Ser Leu Gl 275	n Lys Phe	Gly Glu 280	Arg Ala	Phe Lys	Ala Tr	o Ala	Val
Ala Arg Leu Se 290	r Gln Arg	Phe Pro 295	Lys Ala	Glu Phe 300	Ala Gl	ı Val	Ser
Lys Leu Val Th 305	r Asp Leu 310	Thr Lys	Val His	Thr Glu 315	Cys Cy	s His	Gly 320
Asp Leu Leu Gl	325		330			335	
Cys Glu Asn Gl		Ile Ser	Ser Lys 345	Leu Lys	Glu Cy:	_	Glu
Lys Pro Leu Le 355	u Glu Lys	Ser His 360	Cys Ile	Ala Glu	Val Glu 365	ı Asn	Asp
Glu Met Pro Al 370	a Asp Leu	Pro Ser 375	Leu Ala	Ala Asp 380	Phe Va	l Glu	Ser
Lys Asp Val Cy 385	s Lys Asn 390	Tyr Ala	Glu Ala	Lys Asp 395	Val Pho	e Leu	Gly 400
Met Phe Leu Ty	r Glu Tyr 405	Ala Arg	Arg His 410	Pro Asp	Tyr Se	415	Val

Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys 420 425 Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys 455 Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu 475 Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val 520 Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 565 570 Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 600 Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 615 Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 645 650

Leu

<210> 1672

<211> 740

<212> PRT

<213> Homo sapiens

<400> 1672

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Val Pro Ala Pro Lys Val Pro Ile 20 25 30

Lys Met Gln Val Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala

Trp	Gly 50	Ala	Arg	Val	Val	G1u 55	Pro	Pro	Glu	Lys	Asp 60	Asp	Gln	Leu	Val
Va1 65	Leu	Phe	Pro	Val	Gln 70	Lys	Pro	Lys	Leu	Leu 75	Thr	Thr	Glu	Glu	Lys 80
Pro	Arg	Gly	Gln	Gly 85	Arg	Gly	Pro	Ile	Leu 90	Pro	Gly	Thr	Lys	Ala 95	Trp
Met	Glu	Thr	Glu 100	Asp	Thr	Leu	Gly	Arg 105	Val	Leu	Ser	Pro	Glu 110	Pro	Asp
His	Asp	Ser 115	Leu	Tyr	His	Pro	Pro 120	Pro	Glu	Glu	Asp	Gln 125	Gly	Glu	Glu
Arg	Pro 130	Arg	Leu	Trp	Val	Met 135	Pro	Asn	His	Gln	Val 140	Leu	Leu	Gly	Pro
Glu 145	Glu	Asp	Gln	Asp	His 150	Ile	Tyr	His	Pro	Gln 155	Asp	Ala	His	Lys	Ser 160
Glu	Val	Ala	His	Arg 165	Phe	Lys	Asp	Leu	Gly 170	Glu	Glu	Asn	Phe	Lys 175	Ala
Leu	Val	Leu	Ile 180	Ala	Phe	Ala	Gln	Tyr 185	Leu	Gln	Gln	Cys	Pro 190	Phe	Glu
Asp	His	Val 195	Lys	Leu	Val	Asn	Glu 200	Val	Thr	Glu	Phe	Ala 205	Lys	Thr	Cys
Val	Ala 210	Asp	Glu	Ser	Ala	Glu 215	Asn	Cys	Asp	Lys	Ser 220	Leu	His	Thr	Leu
Phe 225	Gly	Asp	Lys	Leu	Cys 230	Thr	Val	Ala	Thr	Leu 235	Arg	Glu	Thr	Tyr	Gly 240
Glu	Met	Ala	Asp	Cys 245	Cys	Ala	Lys	Gln	Glu 250	Pro	Glu	Arg	Asn	Glu 255	Cys
Phe	Leu	Gln	His 260	Lys	Asp	Asp	Asn	Pro 265	Asn	Leu	Pro	Arg	Leu 270	Val	Arg
Pro	Glu	Val 275	Asp	Val	Met	Cys	Thr 280	Ala	Phe	His	Asp	Asn 285	Glu	Glu	Thr
Phe	Leu 290	Lys	Lys	Tyr	Leu	Tyr 295	Glu	Ile	Ala	Arg	Arg 300	His	Pro	Tyr	Phe
Tyr 305	Ala	Pro	Glu	Leu	Leu 310	Phe	Phe	Ala	Lys	Arg 315	Tyr	Lys	Ala	Ala	Phe 320
Thr	Glu	Cys	Cys	Gln 325	Ala	Ala	Asp	Lys	Ala 330	Ala	Cys	Leu	Leu	Pro 335	Lys
Leu	Asp	Glu	Leu 340	Arg	Asp	Glu	Gly	Lys 345	Ala	Ser	Ser	Ala	Lys 350	Gln	Arg
Leu	Lys	Cys 355	Ala	Ser	Leu	Gln	Lys 360	Phe	Gly	Glu	Arg	Ala 365	Phe	Lys	Ala
Trp	Ala	Va1	Ala	Arg	Leu	Ser	Gln	Arg	Phe	Pro	Lys	Ala	Glu	Phe	Ala

Glu 385	Val	Ser	Lys	Leu	Val 390	Thr	Asp	Leu	Thr	Lys 395	Va1	His	Thr	Glu	Cys 400
Cys	His	Gly	Asp	Leu 405	Leu	Glu	Cys	Ala	Asp 410	Asp	Arg	Ala	Asp	Leu 415	Ala
Lys	Tyr	Ile	Cys 420	Glu	Asn	Gln	Asp	Ser 425	Ile	Ser	Ser	Lys	Leu 430	Lys	Glu
Cys	Cys	Glu 435	Lys	Pro	Leu	Leu	Glu 440	Lys	Ser	His	Cys	Ile 445	Ala	Glu	Val
Glu	Asn 450	Asp	Glu	Met	Pro	Ala 455	Asp	Leu	Pro	Ser	Leu 460	Ala	Ala	Asp	Phe
Val 465	Glu	Ser	Lys	Asp	Val 470	Cys	Lys	Asn	Tyr	Ala 475	Glu	Ala	Lys	Asp	Val 480
Phe	Leu	Gly	Met	Phe 485	Leu	Tyr	Glu	Tyr	Ala 490	Arg	Arg	His	Pro	Asp 495	Tyr
Ser	Val	Val	Leu 500	Leu	Leu	Arg	Leu	Ala 505	Lys	Thr	Tyr	Glu	Thr 510	Thr	Leu
Glu	Lys	Cys 515	Cys	Ala	Ala	Ala	Asp 520	Pro	His	Glu	Cys	Tyr 525	Ala	Lys	Val
Phe	Asp 530	Glu	Phe	Lys	Pro	Leu 535	Va1	Glu	Glu	Pro	Gln 540	Asn	Leu	Ile	Lys
Gln 545	Asn	Cys	Glu	Leu	Phe 550	Glu	Gln	Leu	Gly	Glu 555	Tyr	Lys	Phe	Gln	Asn 560
Ala	Leu	Leu	Val	Arg 565	Tyr	Thr	Lys	Lys	Val 570	Pro	Gln	Val	Ser	Thr 575	Pro
Thr	Leu	Val	Glu 580	Val	Ser	Arg	Asn	Leu 585	Gly	Lys	Va1	Gly	Ser 590	Lys	Cys
Cys	Lys	His 595	Pro	Glu	Ala	Lys	Arg 600	Met	Pro	Cys	Ala	Glu 605	Asp	Tyr	Leu
Ser	Val 610	Val	Leu	Asn	Gln	Leu 615	Cys	Val	Leu	His	Glu 620	Lys	Thr	Pro	Val
Ser 625	Asp	Arg	Val	Thr	Lys 630	Cys	Cys	Thr	Glu	Ser 635	Leu	Val	Asn	Arg	Arg 640
Pro	Cys	Phe	Ser	Ala 645	Leu	Glu	Val	Asp	Glu 650	Thr	Tyr	Val	Pro	Lys 655	Glu
Phe	Asn	Ala	Glu 660	Thr	Phe	Thr	Phe	His 665	Ala	Asp	Ile	Суѕ	Thr 670	Leu	Ser

Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val

Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp 690 $$ 695 $$ 700

Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu

705 710 715 720

Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala 725 730 735

Ala Leu Gly Leu 740

<210> 1673

<211> 736

<212> PRT

<213> Homo sapiens

<400> 1673

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys

1 5 10 15

Ile Ser Ala Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr 20 25 30

Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn 35 40 45

Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His 50 60

Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys 65 70 75 80

Asp Met Lys Glu Asn Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr 85 90 95

Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu 100 105 110

Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg 115 120 125

Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr 130 135 140

Ile Lys Asp Met Lys Glu Asn Asp Ala His Lys Ser Glu Val Ala His 145 150 155 160

Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile 165 170 175

Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys 180 185 190

Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu 195 200 205

Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys 210 220

Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp 225 230 235 240

Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His 245 250 255

Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp 260 265 Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys 280 Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys 310 315 Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu 330 Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala 345 Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala 360 Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys 375 Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp 390 395 Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys 410 Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys 425 Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu 440 Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys 455 Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met 470 475 Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu 490 Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys 505 Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe 520 Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu 565 570 Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro 585

Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu 600 Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val 615 Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu 645 650 Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro 680 Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala 695 Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu 730

<210> 1674 <211> 677 <212> PRT

<213> Homo sapiens

<400> 1674

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Ile Lys Pro Glu Ala Pro Gly Glu 20 25 30

Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr Ile Lys Pro Glu Ala Pro 50 55 60

Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu 65 70 75 80

Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr Asp Ala His Lys
85 90 95

Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys 100 105 110

Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe 115 120 125 Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr 170 Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu 215 Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln 280 Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu 330 Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu 375 Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys 455

Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln 490 Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr 505 Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr 535 Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu 615 Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln 665 Ala Ala Leu Gly Leu <210> 1675 <211> 677 <212> PRT <213> Homo sapiens

<400> 1675

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg Asp Ala His Lys Ser Glu Val Ala 20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu 35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val 50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp 65 70 75 80

Glu Ser A	Ala Glu	Asn Cys 85	Asp	Lys	Ser	Leu 90	His	Thr	Leu	Phe	Gly 95	Asp
Lys Leu (Cys Thr 100	Val Ala	Thr	Leu	Arg 105	Glu	Thr	Tyr	Gly	Glu 110	Met	Ala
Asp Cys (Cys Ala 115	Lys Glr	G1u	Pro 120	Glu	Arg	Asn	Glu	Cys 125	Phe	Leu	Gln
His Lys 1	Asp Asp	Asn Pro	Asn 135	Leu	Pro	Arg	Leu	Val 140	Arg	Pro	Glu	Val
Asp Val 1 145	Met Cys	Thr Ala		His	Asp	Asn	Glu 155	Glu	Thr	Phe	Leu	Lys 160
Lys Tyr 1	Leu Tyr	Glu Ile 165	Ala	Arg	Arg	His 170	Pro	Tyr	Phe	Tyr	Ala 175	Pro
Glu Leu I	180				185					190		
Cys Gln i	Ala Ala 195	Asp Lys	Ala	Ala 200	Cys	Leu	Leu	Pro	Lys 205	Leu	Asp	Glu
Leu Arg 2 210			215				_	220				
Ala Ser 1 225		230	_				235	_		_		240
Ala Arg 1	Leu Ser	Gln Arg 245	Phe	Pro	Lys	Ala 250	Glu	Phe	Ala	Glu	Val 255	Ser
Lys Leu '	Val Thr 260	Asp Leu	Thr	Lys	Val 265	His	Thr	Glu	Cys	Cys 270	His	Gly
	275			280					285			
Cys Glu 2 290	Asn Gln	Asp Ser	11e 295	Ser	Ser	Lys	Leu	100 300	Glu	Cys	Cys	Glu
Lys Pro 1 305		310			_		315					320
Glu Met 1		325				330					335	
Lys Asp '	Val Cys 340	Lys Asr	Tyr	Ala	Glu 345	Ala	Lys	Asp	Val	Phe 350	Leu	Gly
Met Phe I	Leu Tyr 355	Glu Tyr	Ala	Arg 360	Arg	His	Pro	Asp	Туr 365	Ser	Val	Val
Leu Leu 1 370	Leu Arg	Leu Ala	Lys 375	Thr	Tyr	Glu	Thr	Thr 380	Leu	Glu	Lys	Cys
Cys Ala 2 385	Ala Ala	Asp Pro		Glu	Cys	Tyr	Ala 395	Lys	Val	Phe	Asp	Glu 400
Phe Lys	Pro Leu	Val Glu 405	Glu	Pro	Gln	Asn 410	Leu	Ile	Lys	Gln	Asn 415	Cys

Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu 420 425 430

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val 435 440 445

Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His 450 455 460

Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val 465 470 475 480

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg
485 490 495

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe 500 505 510

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala 515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu 530 540

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys 545 550 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly 595 600 605

Leu Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu 610 615 620

Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg 625 630 635 640

Gln Arg Tyr Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu 645 650 655

Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val 660 665 670

Thr Arg Gln Arg Tyr 675

<210> 1676

<211> 000

<212> PRT

<213> Homo sapiens

<400> 1676

000

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<400> 1677
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<400> 1678
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<400> 1680
000
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<211> 33
<212> PRT
<213> Homo sapiens
<400> 1681
Cys Ser Asn Leu Ser Thr Cys Val Leu Gly Lys Leu Ser Gln Glu Leu
His Lys Leu Gln Thr Tyr Pro Arg Thr Asn Thr Gly Ser Gly Thr Pro
Gly
<210> 1682
<211> 565
<212> PRT
<213> Homo sapiens
<400> 1682
Met Ala Ala Ala Gly Arg Leu Pro Ser Ser Trp Ala Leu Phe Ser Pro
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Leu	Leu	Ala	Gly 20	Leu	Ala	Leu	Leu	Gly 25	Val	Gly	Pro	Val	Pro 30	Ala	Arg
Ala	Leu	His 35	Asn	Val	Thr	Ala	Glu 40	Leu	Phe	Gly	Ala	Glu 45	Ala	Trp	Gly
Thr	Leu 50	Ala	Ala	Phe	Gly	Asp 55	Leu	Asn	Ser	Asp	Lys 60	Gln	Thr	Asp	Leu
Phe 65	Val	Leu	Arg	Glu	Arg 70	Asn	Asp	Leu	Ile	Val 75	Phe	Leu	Ala	Asp	Gln 80
Asn	Ala	Pro	Tyr	Phe 85	Lys	Pro	Lys	Val	Lys 90	Val	Ser	Phe	Lys	Asn 95	His
Ser	Ala	Leu	11e 100	Thr	Ser	Va1	Val	Pro 105	Gly	Asp	Tyr	Asp	Gly 110	Asp	Ser
Gln	Met	Asp 115	Val	Leu	Leu	Thr	Туг 120	Leu	Pro	Lys	Asn	Туг 125	Ala	Lys	Ser
Glu	Leu 130	Gly	Ala	Val	Ile	Phe 135	Trp	Gly	Gln	Asn	Gln 140	Thr	Leu	Asp	Pro
Asn 145	Asn	Met	Thr	Ile	Leu 150	Asn	Arg	Thr	Phe	Gln 155	Asp	Glu	Pro	Leu	Ile 160
Met	Asp	Phe	Asn	Gly 165	Asp	Leu	Ile	Pro	Asp 170	Ile	Phe	Gly	Ile	Thr 175	Asn
Glu	Ser	Asn	Gln 180	Pro	Gln	Ile	Leu	Leu 185	Gly	Gly	Asn	Leu	Ser 190	Trp	His
Pro	Ala	Leu 195	Thr	Thr	Thr	Ser	Lys 200	Met	Arg	Ile	Pro	His 205	Ser	His	Ala
Phe	Ile 210	Asp	Leu	Thr	Glu	Asp 215	Phe	Thr	Ala	Asp	Leu 220	Phe	Leu	Thr	Thr
Leu 225	Asn	Ala	Thr	Thr	Ser 230	Thr	Phe	Gln	Phe	Glu 235	Ile	Trp	Glu	Asn	Leu 240
Asp	Gly	Asn	Phe	Ser 245	Val	Ser	Thr	Ile	Leu 250	Glu	Lys	Pro	Gln	Asn 255	Met
Met	Val	Val	Gly 260	Gln	Ser	Ala	Phe	Ala 265	Asp	Phe	Asp	Gly	Asp 270	Gly	His
Met	Asp	His 275	Leu	Leu	Pro	Gly	Cys 280	Glu	Asp	Lys	Asn	Cys 285	Gln	Lys	Ser
Thr	Ile 290	Tyr	Leu	Val	Arg	Ser 295	Gly	Met	Lys	Gln	Trp 300	Val	Pro	Val	Leu
Gln 305	Asp	Phe	Ser	Asn	Lys 310	Gly	Thr	Leu	Trp	Gly 315	Phe	Val	Pro	Phe	Val 320
Asp	Glu	Gln	Gln	Pro 325	Thr	Glu	Ile	Pro	11e 330	Pro	Ile	Thr	Leu	His 335	Ile
Gly	Asp	Tyr	Asn 340	Met	Asp	Gly	Tyr	Pro 345	Asp	Ala	Leu	Val	Ile 350	Leu	Lys

Asn Thr Ser Gly Ser Asn Gln Gln Ala Phe Leu Leu Glu Asn Val Pro 355 360 365

Cys Asn Asn Ala Ser Cys Glu Glu Ala Arg Arg Met Phe Lys Val Tyr 370 375 380

Trp Glu Leu Thr Asp Leu Asn Gln Ile Lys Asp Ala Met Val Ala Thr 385 390 395 400

Phe Phe Asp Ile Tyr Glu Asp Gly Ile Leu Asp Ile Val Val Leu Ser 405 410 415

Lys Gly Tyr Thr Lys Asn Asp Phe Ala Ile His Thr Leu Lys Asn Asn 420 425 430

Phe Glu Ala Asp Ala Tyr Phe Val Lys Val Ile Val Leu Ser Gly Leu 435 440 445

Cys Ser Asn Asp Cys Pro Arg Lys Ile Thr Pro Phe Gly Val Asn Gln 450 455 460

Pro Gly Pro Tyr Ile Met Tyr Thr Thr Val Asp Ala Asn Gly Tyr Leu 465 470 475 480

Lys Asn Gly Ser Ala Gly Gln Leu Ser Gln Ser Ala His Leu Ala Leu
485 490 495

Gln Leu Pro Tyr Asn Val Leu Gly Leu Gly Arg Ser Ala Asn Phe Leu 500 505 510

Asp His Leu Tyr Val Gly Ile Pro Arg Pro Ser Gly Glu Lys Ser Ile 515 520 525

Arg Lys Gln Glu Trp Thr Ala Ile Ile Pro Asn Ser Gln Leu Ile Val 530 540

Ile Pro Tyr Pro His Asn Val Pro Arg Ser Trp Ser Ala Lys Leu Tyr 545 550 555 560

Leu Thr Pro Ser Asn

<210> 1683

<211> 565

<212> PRT

<213> Homo sapiens

<400> 1683

Met Ala Ala Ala Gly Arg Leu Pro Ser Ser Trp Ala Leu Phe Ser Pro 1 5 10 15

Leu Leu Ala Gly Leu Ala Leu Leu Gly Val Gly Pro Val Pro Ala Arg 20 25 30

Ala Leu His Asn Val Thr Ala Glu Leu Phe Gly Ala Glu Ala Trp Gly 35 40

Thr Leu Ala Ala Phe Gly Asp Leu Asn Ser Asp Lys Gln Thr Asp Leu 50 60

Phe Val Leu Arg Glu Arg Asn Asp Leu Ile Val Phe Leu Ala Asp Gln 65 70 75 80

Asn Ala Pro Tyr Phe Lys Pro Lys Val Lys Val Ser Phe Lys Asn His Ser Ala Leu Ile Thr Ser Val Val Pro Gly Asp Tyr Asp Gly Asp Ser Gln Met Asp Val Leu Leu Thr Tyr Leu Pro Lys Asn Tyr Ala Lys Ser Glu Leu Gly Ala Val Ile Phe Trp Gly Gln Asn Gln Thr Leu Asp Pro 135 Asn Asn Met Thr Ile Leu Asn Arg Thr Phe Gln Asp Glu Pro Leu Ile Met Asp Phe Asn Gly Asp Leu Ile Pro Asp Ile Phe Gly Ile Thr Asn Glu Ser Asn Gln Pro Gln Ile Leu Leu Gly Gly Asn Leu Ser Trp His 185 Pro Ala Leu Thr Thr Ser Lys Met Arg Ile Pro His Ser His Ala Phe Ile Asp Leu Thr Glu Asp Phe Thr Ala Asp Leu Phe Leu Thr Thr 215 Leu Asn Ala Thr Thr Ser Thr Phe Gln Phe Glu Ile Trp Glu Asn Leu 230 235 Asp Gly Asn Phe Ser Val Ser Thr Ile Leu Glu Lys Pro Gln Asn Met Met Val Val Gly Gln Ser Ala Phe Ala Asp Phe Asp Gly Asp Gly His 265 Met Asp His Leu Leu Pro Gly Cys Glu Asp Lys Asn Cys Gln Lys Ser Thr Ile Tyr Leu Val Arg Ser Gly Met Lys Gln Trp Val Pro Val Leu 295 Gln Asp Phe Ser Asn Lys Gly Thr Leu Trp Gly Phe Val Pro Phe Val Asp Glu Gln Gln Pro Thr Glu Ile Pro Ile Pro Ile Thr Leu His Ile Gly Asp Tyr Asn Met Asp Gly Tyr Pro Asp Ala Leu Val Ile Leu Lys 340 345 Asn Thr Ser Gly Ser Asn Gln Gln Ala Phe Leu Leu Glu Asn Val Pro Cys Asn Asn Ala Ser Cys Glu Glu Ala Arg Arg Met Phe Lys Val Tyr 375 Trp Glu Leu Thr Asp Leu Asn Gln Ile Lys Asp Ala Met Val Ala Thr 395 Phe Phe Asp Ile Tyr Glu Asp Gly Ile Leu Asp Ile Val Val Leu Ser 410

Lys Gly Tyr Thr Lys Asn Asp Phe Ala Ile His Thr Leu Lys Asn Asn 420 425 430

Phe Glu Ala Asp Ala Tyr Phe Val Lys Val Ile Val Leu Ser Gly Leu
435 440 445

Cys Ser Asn Asp Cys Pro Arg Lys Ile Thr Pro Phe Gly Val Asn Gln 450 455 460

Pro Gly Pro Tyr Ile Met Tyr Thr Thr Val Asp Ala Asn Gly Tyr Leu 465 470 475 480

Lys Asn Gly Ser Ala Gly Gln Leu Ser Gln Ser Ala His Leu Ala Leu 485 490 495

Gln Leu Pro Tyr Asn Val Leu Gly Leu Gly Arg Ser Ala Asn Phe Leu 500 505 510

Asp His Leu Tyr Val Gly Ile Pro Arg Pro Ser Gly Glu Lys Ser Ile 515 520 525

Arg Lys Gln Glu Trp Thr Ala Ile Ile Pro Asn Ser Gln Leu Ile Val $530 \hspace{1.5cm} 535 \hspace{1.5cm} 540$

Ile Pro Tyr Pro His Asn Val Pro Arg Ser Trp Ser Ala Lys Leu Tyr 545 550 555 560

Leu Thr Pro Ser Asn

<210> 1684

<211> 208

<212> PRT <213> Homo sapiens

<400> 1684

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu 1 5 10 15

Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
50 55 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80

Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95

Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110

Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125

Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys

Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160

Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met
165 170 175

Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190

Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205

<210> 1685

<211> 208

<212> PRT

<213> Homo sapiens

<400> 1685

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu

1 5 10 15

Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40 45

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly 50 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80

Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95

Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110

Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125

Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 140

Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly
145 150 155 160

Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met
165 170 175

Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190

Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205 <210> 1686

<211> 263

<212> PRT

<213> Homo sapiens

<400> 1686

Met Ala Leu Val Leu Ile Leu Gln Leu Leu Thr Leu Trp Pro Leu Cys

1 10 15

His Thr Asp Ile Thr Pro Ser Val Pro Pro Ala Ser Tyr His Pro Lys
20 25 30

Pro Trp Leu Gly Ala Gln Pro Ala Thr Val Val Thr Pro Gly Val Asn
35 40 45

Val Thr Leu Arg Cys Arg Ala Pro Gln Pro Ala Trp Arg Phe Gly Leu 50 60

Phe Lys Pro Gly Glu Ile Ala Pro Leu Leu Phe Arg Asp Val Ser Ser 65 70 75 80

Glu Leu Ala Glu Phe Phe Leu Glu Glu Val Thr Pro Ala Gln Gly Gly 85 90 95

Ser Tyr Arg Cys Cys Tyr Arg Arg Pro Asp Trp Gly Pro Gly Val Trp
100 105 110

Ser Gln Pro Ser Asp Val Leu Glu Leu Leu Val Thr Glu Glu Leu Pro 115 120 125

Arg Pro Ser Leu Val Ala Leu Pro Gly Pro Val Val Gly Pro Gly Ala 130 135 140

Asn Val Ser Leu Arg Cys Ala Gly Arg Leu Arg Asn Met Ser Phe Val 145 150 155 160

Leu Tyr Arg Glu Gly Val Ala Ala Pro Leu Gln Tyr Arg His Ser Ala 165 170 175

Gln Pro Trp Ala Asp Phe Thr Leu Leu Gly Ala Arg Ala Pro Gly Thr 180 185 190

Tyr Ser Cys Tyr Tyr His Thr Pro Ser Ala Pro Tyr Val Leu Ser Gln
195 200 205

Arg Ser Glu Val Leu Val Ile Ser Trp Glu Asp Ser Gly Ser Ser Asp 210 215 220

Tyr Thr Arg Gly Asn Leu Val Arg Leu Gly Leu Ala Gly Leu Val Leu 225 230 235 240

Ile Ser Leu Gly Ala Leu Val Thr Phe Asp Trp Arg Ser Gln Asn Arg 245 250 255

Ala Pro Ala Gly Ile Arg Pro 260

<210> 1687

<211> 187

<212> PRT

<213> Homo sapiens

<400> 1687

Met Thr Asn Lys Cys Leu Leu Gln Ile Ala Leu Leu Cys Phe Ser
1 5 10 15

Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg

Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg 35 40 45

Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu 50 55 60

Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile 65 70 75 80

Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser 85 90 95

Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val 100 105 110

Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu 115 120 125

Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys 130 135 140

Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser 145 150 155 160

His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr
165 170 175

Phe Ile Asn Arg Leu Thr Gly Tyr Leu Arg Asn

<210> 1688

<211> 208

<212> PRT

<213> Homo sapiens

<400> 1688

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu 1 5 10 \cdot 15

Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40 45

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
50 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80

- Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95
- Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110
- Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125
- Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 140
- Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160
- Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met 165 170 175
- Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190
- Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205

<210> 1689

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1689

- Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu 1 5 10 15
- Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu 20 25 30
- Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40
- Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 50 55 60
- Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 65 70 75 80
- Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95
- Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val As
n Ser Ser 100 105 110
- Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly
 115 120 125
- Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140
- Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160
- Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu

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165 170 175
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Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 180 185 190

<210> 1690

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1690

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
20 25 30

Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40 45

Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 50 55 60

Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg
65 70 75 80

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 100 105 110

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly
115 120 125

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 140

Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160

Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 180 185 190

<210> 1691

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1691

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu 1 5 10 15

Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu
20 25 30

170

<210> 1692

<211> 208 <212> PRT

<213> Homo sapiens

<400> 1692

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu

1 5 10 15

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp

Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40 45

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
50 55 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 . 70 75 80

Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly
85 90 95

Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110

Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125

- Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 135 140
- Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160
- Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met
 165 170 175
- Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190
- Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205
- <210> 1693
- <211> 208
- <212> PRT
- <213> Homo sapiens
- <400> 1693
- Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu

 1 5 10 15
- Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30
- Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40
- Ala Thr Asn Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
 50 55 60
- Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80
- Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95
- Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110
- Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125
- Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 135 140
- Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160
- Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met
 165 170 175
- Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190
- Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205

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<210> 1694
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<211> 208

<212> PRT

<213> Homo sapiens

<400> 1694

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu

1 5 10 15

Pro Gly Cys Cys Cys Cys Phe Leu Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40 45

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
50 55 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80

Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95

Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110

Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125

Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 135 140

Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160

Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met 165 170 175

Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190

Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205

<210> 1695

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1695

Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15

Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser
20 25 30

Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu
35 40 45

Pro	Glu 50	His	Thr	Phe	Asn	Leu 55	Lys	Met	Phe	Leu	Glu 60	Asn	Val	Lys	Val
Asp 65	Phe	Leu	Arg	Ser	Leu 70	Asn	Leu	Ser	Gly	Val 75	Pro	Ser	Gln	qaA	Lys 80
Thr	Arg	Val	Glu	Pro 85	Pro	Gln	Tyr	Met	11e 90	Asp	Leu	Tyr	Asn	Arg 95	Tyr
Thr	Ser	Asp	Lys 100	Ser	Thr	Thr	Pro	Ala 105	Ser	Asn	Ile	Val	Arg 110	Ser	Phe
Ser	Met	Glu 115	Asp	Ala	Ile	Ser	Ile 120	Thr	Ala	Thr	Glu	Asp 125	Phe	Pro	Phe
Gln	Lys 130	His	Ile	Leu	Leu	Phe 135	Asn	Ile	Ser	Ile	Pro 140	Arg	His	Glu	Gln
Ile 145	Thr	Arg	Ala	Glu	Leu 150	Arg	Leu	Tyr	Val	Ser 155	Cys	Gln	Asn	His	Val 160
Asp	Pro	Ser	His	Asp 165	Leu	Lys	Gly	Ser	Val 170	Val	Ile	Tyr	Asp	Val 175	Leu
Asp	Gly	Thr	Asp 180	Ala	Trp	Asp	Ser	Ala 185	Thr	Glu	Thr	Lys	Thr 190	Phe	Leu
Val	Ser	Gln 195	Asp	Ile	Gln	Asp	Glu 200	Gly	Trp	Glu	Thr	Leu 205	Glu	Val	Ser
Ser	Ala 210	Val	Lys	Arg	Trp	Val 215	Arg	Ser	Asp	Ser	Thr 220	Lys	Ser	Lys	Asn
Lys 225	Leu	Glu	Val	Thr	Val 230	Glu	Ser	His	Arg	Lys 235	Gly	Cys	Asp	Thr	Leu 240
Asp	Ile	Ser	Val	Pro 245	Pro	Gly	Ser	Arg	Asn 250	Leu	Pro	Phe	Phe	Val 255	Val
Phe	Ser	Asn	Asp 260	His	Ser	Ser	Gly	Thr 265	Lys	Glu	Thr	Arg	Leu 270	Glu	Leu
Arg	Glu	Met 275	Ile	Ser	His	Glu	Gln 280	Glu	Ser	Val	Leu	Lys 285	Lys	Leu	Ser
Lys	Asp 290	Gly	Ser	Thr	Glu	Ala 295	Gly	Glu	Ser	Ser	His 300	Glu	Glu	Asp	Thr
Asp 305	Gly	His	Va1	Ala	Ala 310	Gly	Ser	Thr	Leu	Ala 315	Arg	Arg	Lys	Arg	Ser 320
Ala	Gly	Ala	Gly	Ser 325	His	Cys	Gln	Lys	Thr 330	Ser	Leu	Arg	Val	Asn 335	Phe
Glu	Asp	Ile	Gly 340	Trp	Asp	Ser		11e 345	Ile	Ala	Pro	Lys	Glu 350	Tyr	Glu
Ala	Tyr	Glu 355	Cys	Lys	Gly	Gly	Cys 360	Phe	Phe	Pro	Leu	Ala 365	Asp	Asp	Val
Thr	Pro 370	Thr	Lys	His	Ala	Ile 375	Val	Gln	Thr	Leu	Val 380	His	Leu	Lys	Phe

Pro Thr Lys Val Gly Lys Ala Cys Cys Val Pro Thr Lys Leu Ser Pro 385 390 395 400

Ile Ser Val Leu Tyr Lys Asp Asp Met Gly Val Pro Thr Leu Lys Tyr 405 415

His Tyr Glu Gly Met Ser Val Ala Glu Cys Gly Cys Arg 420 425

<210> 1696

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1696

Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15

Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser 20 25 30

Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu 35 40 45

Pro Glu His Thr Phe Asn Leu Lys Met Phe Leu Glu Asn Val Lys Val 50 55 60

Asp Phe Leu Arg Ser Leu Asn Leu Ser Gly Val Pro Ser Gln Asp Lys
65 70 75 80

Thr Arg Val Glu Pro Pro Gln Tyr Met Ile Asp Leu Tyr Asn Arg Tyr 85 90 95

Thr Ser Asp Lys Ser Thr Thr Pro Ala Ser Asn Ile Val Arg Ser Phe
100 105 110

Ser Met Glu Asp Ala Ile Ser Ile Thr Ala Thr Glu Asp Phe Pro Phe 1:15 120 125

Gln Lys His Ile Leu Leu Phe Asn Ile Ser Ile Pro Arg His Glu Gln 130 135 140

Ile Thr Arg Ala Glu Leu Arg Leu Tyr Val Ser Cys Gln Asn His Val 145 150 155 160

Asp Pro Ser His Asp Leu Lys Gly Ser Val Val Ile Tyr Asp Val Leu 165 170 175

Asp Gly Thr Asp Ala Trp Asp Ser Ala Thr Glu Thr Lys Thr Phe Leu 180 185 190

Val Ser Gln Asp Ile Gln Asp Glu Gly Trp Glu Thr Leu Glu Val Ser 195 200 205

Ser Ala Val Lys Arg Trp Val Arg Ser Asp Ser Thr Lys Ser Lys Asn 210 215 220

Lys Leu Glu Val Thr Val Glu Ser His Arg Lys Gly Cys Asp Thr Leu 225 230 235 240

Asp Ile Ser Val Pro Pro Gly Ser Arg Asn Leu Pro Phe Phe Val Val

Phe Ser Asn Asp His Ser Ser Gly Thr Lys Glu Thr Arg Leu Glu Leu 260 265 270

- Arg Glu Met Ile Ser His Glu Gln Glu Ser Val Leu Lys Lys Leu Ser 275 280 285
- Lys Asp Gly Ser Thr Glu Ala Gly Glu Ser Ser His Glu Glu Asp Thr 290 295 300
- Asp Gly His Val Ala Ala Gly Ser Thr Leu Ala Arg Arg Lys Arg Ser 305 310 315 320
- Ala Gly Ala Gly Ser His Cys Gln Lys Thr Ser Leu Arg Val Asn Phe 325 330 335
- Glu Asp Ile Gly Trp Asp Ser Trp Ile Ile Ala Pro Lys Glu Tyr Glu 340 345 350
- Ala Tyr Glu Cys Lys Gly Gly Cys Phe Phe Pro Leu Ala Asp Asp Val 355 360 365
- Thr Pro Thr Lys His Ala Ile Val Gln Thr Leu Val His Leu Lys Phe 370 375 380
- Pro Thr Lys Val Gly Lys Ala Cys Cys Val Pro Thr Lys Leu Ser Pro 385 390 395 400
- Ile Ser Val Leu Tyr Lys Asp Asp Met Gly Val Pro Thr Leu Lys Tyr 405 410 415
- His Tyr Glu Gly Met Ser Val Ala Glu Cys Gly Cys Arg 420 425

<210> 1697

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1697

- Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15
- Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser
 20 25 30
- Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu
 35 40 45
- Pro Glu His Thr Phe Asn Leu Lys Met Phe Leu Glu Asn Val Lys Val 50 60
- Asp Phe Leu Arg Ser Leu Asn Leu Ser Gly Val Pro Ser Gln Asp Lys 65 70 75 80
- Thr Arg Val Glu Pro Pro Gln Tyr Met Ile Asp Leu Tyr Asn Arg Tyr
 85 90 95
- Thr Ser Asp Lys Ser Thr Thr Pro Ala Ser Asn Ile Val Arg Ser Phe 100 105 110

Ser	Met	Glu 115	Asp	Ala	Ile	Ser	11e 120	Thr	Ala	Thr	Glu	Asp 125	Phe	Pro	Phe
Gln	Lys 130	His	Ile	Leu	Leu	Phe 135	Asn	Ile	Ser	Ile	Pro 140	Arg	His	Glu	Gln
Ile 145	Thr	Arg	Ala	Glu	Leu 150	Arg	Leu	Tyr	Val	Ser 155	Cys	Gln	Asn	His	Val 160
Asp	Pro	Ser	His	Asp 165	Leu	Lys	Gly	Ser	Val 170	Val	Ile	Tyr	Asp	Val 175	Leu
Asp	Gly	Thr	Asp 180	Ala	Trp	Asp	Ser	Ala 185	Thr	Glu	Thr	Lys	Thr 190	Phe	Leu
Val	Ser	Gln 195	Asp	Ile	Gln	Asp	Glu 200	Gly	Trp	Glu	Thr	Leu 205	Glu	Va1	Ser
Ser	Ala 210	Val	Lys	Arg	Trp	Val 215	Arg	Ser	Asp	Ser	Thr 220	Lys	Ser	Lys	Asn
Lys 225	Leu	Glu	Val	Thr	Val 230	Glu	Ser	His	Arg	Lys 235	Gly	Cys	Asp	Thr	Leu 240
Asp	Ile	Ser	Val	Pro 245	Pro	Gly	Ser	Arg	Asn 250	Leu	Pro	Phe	Phe	Val 255	Val
Phe	Ser	Asn	Asp 260	His	Ser	Ser	Gly	Thr 265	Lys	Glu	Thr	Arg	Leu 270	Glu	Leu
Arg	Glu	Met 275	Ile	Ser	His	Glu	Gln 280	Glu	Ser	Val	Leu	Lys 285	Lys	Leu	Ser
Lys	Asp 290	Gly	Ser	Thr	Glu	Ala 295	Gly	Glu	Ser	Ser	His 300	Glu	Glu	Asp	Thr
Asp 305	Gly	His	Val	Ala	Ala 310	Gly	Ser	Thr	Leu	Ala 315	Arg	Arg	Lys	Arg	Ser 320
Ala	Gly	Ala	Gly	Ser 325	His	Cys	Gln	Lys	Thr 330	Ser	Leu	Arg	Val	Asn 335	Phe
Glu	Asp	Ile	Gly 340	Trp	Asp	Ser	Trp	11e 345	Ile	Ala	Pro	Lys	Glu 350	Tyr	Glu
Ala	Tyr	Glu 355	Cys	Lys	Gly	Gly	Cys 360	Phe	Phe	Pro	Leu	Ala 365	Asp	Asp	Val
Thr	Pro 370	Thr	Lys	His	Ala	11e 375	Val	Gln	Thr	Leu	Val 380	His	Leu	Lys	Phe
Pro 385	Thr	Lys	Val	Gly	Lys 390	Ala	Cys	Cys	Val	Pro 395	Thr	Lys	Leu	Ser	Pro 400
Ile	Ser	Val	Leu	Tyr 405	Lys	Asp	Asp	Met	Gly 410	Val	Pro	Thr	Leu	Lys 415	Tyr
His	Tyr	Glu	Gly 420	Met	Ser	Val	Ala	Glu 425	Cys	Gly	Cys	Arg			

<210> 1698

<211> 208

<212> PRT

<213> Homo sapiens

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<400> 1698

Met Trp Lys Trp Ile Leu Thr His Cys Ala Ser Ala Phe Pro His Leu

1 5 10 15

Pro Gly Cys Cys Cys Cys Phe Leu Leu Phe Leu Val Ser Ser 20 25 30

Val Pro Val Thr Cys Gln Ala Leu Gly Gln Asp Met Val Ser Pro Glu 35 40 45

Ala Thr Asn Ser Ser Ser Ser Ser Phe Ser Ser Pro Ser Ser Ala Gly
50 55 60

Arg His Val Arg Ser Tyr Asn His Leu Gln Gly Asp Val Arg Trp Arg 65 70 75 80

Lys Leu Phe Ser Phe Thr Lys Tyr Phe Leu Lys Ile Glu Lys Asn Gly 85 90 95

Lys Val Ser Gly Thr Lys Lys Glu Asn Cys Pro Tyr Ser Ile Leu Glu 100 105 110

Ile Thr Ser Val Glu Ile Gly Val Val Ala Val Lys Ala Ile Asn Ser 115 120 125

Asn Tyr Tyr Leu Ala Met Asn Lys Lys Gly Lys Leu Tyr Gly Ser Lys 130 135 140

Glu Phe Asn Asn Asp Cys Lys Leu Lys Glu Arg Ile Glu Glu Asn Gly 145 150 155 160

Tyr Asn Thr Tyr Ala Ser Phe Asn Trp Gln His Asn Gly Arg Gln Met 165 170 175

Tyr Val Ala Leu Asn Gly Lys Gly Ala Pro Arg Arg Gly Gln Lys Thr 180 185 190

Arg Arg Lys Asn Thr Ser Ala His Phe Leu Pro Met Val Val His Ser 195 200 205

<210> 1699

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1699

Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15

Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser
20 25 30

Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu

40

35

5.5 Asp Phe Leu Arg Ser Leu Asn Leu Ser Gly Val Pro Ser Gln Asp Lys Thr Arg Val Glu Pro Pro Gln Tyr Met Ile Asp Leu Tyr Asn Arg Tyr 90 Thr Ser Asp Lys Ser Thr Thr Pro Ala Ser Asn Ile Val Arg Ser Phe 105 Ser Met Glu Asp Ala Ile Ser Ile Thr Ala Thr Glu Asp Phe Pro Phe 120 Gln Lys His Ile Leu Leu Phe Asn Ile Ser Ile Pro Arg His Glu Gln 135 Ile Thr Arg Ala Glu Leu Arg Leu Tyr Val Ser Cys Gln Asn His Val Asp Pro Ser His Asp Leu Lys Gly Ser Val Val Ile Tyr Asp Val Leu 170 Asp Gly Thr Asp Ala Trp Asp Ser Ala Thr Glu Thr Lys Thr Phe Leu Val Ser Gln Asp Ile Gln Asp Glu Gly Trp Glu Thr Leu Glu Val Ser Ser Ala Val Lys Arg Trp Val Arg Ser Asp Ser Thr Lys Ser Lys Asn 215 Lys Leu Glu Val Thr Val Glu Ser His Arg Lys Gly Cys Asp Thr Leu 230 235 Asp Ile Ser Val Pro Pro Gly Ser Arg Asn Leu Pro Phe Val Val Phe Ser Asn Asp His Ser Ser Gly Thr Lys Glu Thr Arg Leu Glu Leu 265 Arg Glu Met Ile Ser His Glu Gln Glu Ser Val Leu Lys Lys Leu Ser Lys Asp Gly Ser Thr Glu Ala Gly Glu Ser Ser His Glu Glu Asp Thr 295 Asp Gly His Val Ala Ala Gly Ser Thr Leu Ala Arg Arg Lys Arg Ser Ala Gly Ala Gly Ser His Cys Gln Lys Thr Ser Leu Arg Val Asn Phe 330 Glu Asp Ile Gly Trp Asp Ser Trp Ile Ile Ala Pro Lys Glu Tyr Glu 345 Ala Tyr Glu Cys Lys Gly Gly Cys Phe Phe Pro Leu Ala Asp Asp Val

Thr Pro Thr Lys His Ala Ile Val Gln Thr Leu Val His Leu Lys Phe

370 375 380

Pro Thr Lys Val Gly Lys Ala Cys Cys Val Pro Thr Lys Leu Ser Pro 385 390 395 400

Ile Ser Val Leu Tyr Lys Asp Asp Met Gly Val Pro Thr Leu Lys Tyr 405 410 415

His Tyr Glu Gly Met Ser Val Ala Glu Cys Gly Cys Arg
420 425

<210> 1700

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1700

Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15

Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser 20 25 30

Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu 35 40 45

Pro Glu His Thr Phe Asn Leu Lys Met Phe Leu Glu Asn Val Lys Val 50 60

Asp Phe Leu Arg Ser Leu Asn Leu Ser Gly Val Pro Ser Gln Asp Lys 65 70 75 80

Thr Arg Val Glu Pro Pro Gln Tyr Met Ile Asp Leu Tyr Asn Arg Tyr 85 90 95

Thr Ser Asp Lys Ser Thr Thr Pro Ala Ser Asn Ile Val Arg Ser Phe 100 105 110

Ser Met Glu Asp Ala Ile Ser Ile Thr Ala Thr Glu Asp Phe Pro Phe 115 120 125

Gln Lys His Ile Leu Leu Phe Asn Ile Ser Ile Pro Arg His Glu Gln 130 135 140

Ile Thr Arg Ala Glu Leu Arg Leu Tyr Val Ser Cys Gln Asn His Val 145 150 155 160

Asp Pro Ser His Asp Leu Lys Gly Ser Val Val Ile Tyr Asp Val Leu 165 170 175

Asp Gly Thr Asp Ala Trp Asp Ser Ala Thr Glu Thr Lys Thr Phe Leu 180 185 190

Val Ser Gln Asp Ile Gln Asp Glu Gly Trp Glu Thr Leu Glu Val Ser 195 200 205

Ser Ala Val Lys Arg Trp Val Arg Ser Asp Ser Thr Lys Ser Lys Asn 210 215 220

Lys Leu Glu Val Thr Val Glu Ser His Arg Lys Gly Cys Asp Thr Leu 225 230 235 240 Asp Ile Ser Val Pro Pro Gly Ser Arg Asn Leu Pro Phe Phe Val Val 250 Phe Ser Asn Asp His Ser Ser Gly Thr Lys Glu Thr Arg Leu Glu Leu Arg Glu Met Ile Ser His Glu Gln Glu Ser Val Leu Lys Lys Leu Ser Lys Asp Gly Ser Thr Glu Ala Gly Glu Ser Ser His Glu Glu Asp Thr 295 Asp Gly His Val Ala Ala Gly Ser Thr Leu Ala Arg Arg Lys Arg Ser Ala Gly Ala Gly Ser His Cys Gln Lys Thr Ser Leu Arg Val Asn Phe 330 Glu Asp Ile Gly Trp Asp Ser Trp Ile Ile Ala Pro Lys Glu Tyr Glu 345 Ala Tyr Glu Cys Lys Gly Gly Cys Phe Phe Pro Leu Ala Asp Asp Val Thr Pro Thr Lys His Ala Ile Val Gln Thr Leu Val His Leu Lys Phe Pro Thr Lys Val Gly Lys Ala Cys Cys Val Pro Thr Lys Leu Ser Pro 395 Ile Ser Val Leu Tyr Lys Asp Asp Met Gly Val Pro Thr Leu Lys Tyr 410 His Tyr Glu Gly Met Ser Val Ala Glu Cys Gly Cys Arg

<210> 1701

<211> 429

<212> PRT

<213> Homo sapiens

<400> 1701

Met Cys Pro Gly Ala Leu Trp Val Ala Leu Pro Leu Leu Ser Leu Leu 1 5 10 15

Ala Gly Ser Leu Gln Gly Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser 20 25 30

Ala Gly Gly Asn Ala His Ser Pro Leu Gly Val Pro Gly Gly Leu 35 40 45

Pro Glu His Thr Phe Asn Leu Lys Met Phe Leu Glu Asn Val Lys Val 50 55 60

Asp Phe Leu Arg Ser Leu Asn Leu Ser Gly Val Pro Ser Gln Asp Lys 65 70 75 80

Thr Arg Val Glu Pro Pro Gln Tyr Met Ile Asp Leu Tyr Asn Arg Tyr
85 90 95

Thr	Ser	Asp	Lys 100	Ser	Thr	Thr	Pro	Ala 105	Ser	Asn	Ile	Val	Arg 110	Ser	Phe
Ser	Met	Glu 115	Asp	Ala	Ile	Ser	Ile 120	Thr	Ala	Thr	Glu	Asp 125	Phe	Pro	Phe
Gln	Lys 130	His	Ile	Leu	Leu	Phe 135	Asn	Ile	Ser	Ile	Pro 140	Arg	His	Glu	Gln
Ile 145	Thr	Arg	Ala	Glu	Leu 150	Arg	Leu	Tyr	Val	Ser 155	Cys	Gln	Asn	His	Val 160
Asp	Pro	Ser	His	Asp 165	Leu	Lys	Gly	Ser	Val 170	Val	Ile	Tyr	Asp	Val 175	Leu
Asp	Gly	Thr	Asp 180	Ala	Trp	Asp	Ser	Ala 185	Thr	Glu	Thr	Lys	Thr 190	Phe	Leu
Val	Ser	Gln 195	Asp	Ile	Gln	Asp	Glu 200	Gly	Trp	Glu	Thr	Leu 205	Glu	Val	Ser
Ser	Ala 210	Val	Lys	Arg	Trp	Val 215	Arg	Ser	Asp	Ser	Thr 220	Lys	Ser	Lys	Asn
Lys 225	Leu	Glu	Val	Thr	Val 230	Glu	Ser	His	Arg	Lys 235	Gly	Суѕ	Asp	Thr	Leu 240
Asp	Ile	Ser	Val	Pro 245	Pro	Gly	Ser	Arg	Asn 250	Leu	Pro	Phe	Phe	Val 255	Val
Phe	Ser	Asn	Asp 260	His	Ser	Ser	Gly	Thr 265	Lys	Glu	Thr	Arg	Leu 270	Glu	Leu
Arg	Glu	Met 275	Ile	Ser	His	Glu	Gln 280	Glu	Ser	Val	Leu	Lys 285	Lys	Leu	Ser
Lys	Asp 290	Gly	Ser	Thr	Glu	Ala 295	Gly	Glu	Ser	Ser	His 300	Glu	Glu	Asp	Thr
Asp 305	Gly	His	Val	Ala	Ala 310	Gly	Ser	Thr	Leu	Ala 315	Arg	Arg	Lys	Arg	Ser 320
Ala	Gly	Ala	Gly	Ser 325	His	Суз	Gln	Lys	Thr 330	Ser	Leu	Arg	Val	Asn 335	Phe
Glu	Asp	Ile	Gly 340	Trp	Asp	Ser	Trp	11e 345	Ile	Ala	Pro	Lys	Glu 350	Tyr	Glu
Ala	Tyr	Glu 355	Cys	Lys	Gly	Gly	Cys 360	Phe	Phe	Pro	Leu	Ala 365	Asp	Asp	Val
Thr	Pro 370	Thr	Lys	His	Ala	Ile 375	Val	Gln	Thr	Leu	Val 380	His	Leu	Lys	Phe
Pro 385	Thr	Lys	Val	Gly	Lys 390	Ala	Cys	Cys	Val	Pro 395	Thr	Lys	Leu	Ser	Pro 400
Ile	Ser	Val	Leu	Tyr 405	Lys	Asp	Asp	Met	Gly 410	Val	Pro	Thr	Leu	Lys 415	Tyr
His	Tyr	Glu	Gly 420	Met	Ser	Val	Ala	Glu 425	Cys	Gly	Cys	Arg			

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<210> 1702
<211> 207
<212> PRT
<213> Homo sapiens
<400> 1702
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Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln

Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys

Leu Val Ser Glu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu

Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser

Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His

Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile

Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala 135

Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala

Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala 170

Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser 185

Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 200

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<210> 1703
<211> 249
<212> PRT
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<213> Homo sapiens

<400> 1703 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Asn Asn Asn 25

Ala Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

Gly Gly Ile Ile Pro Met Phe Gly Thr Ala Lys Tyr Ser Gln Asn Phe 50 60

Gln Gly Arg Val Ala Ile Thr Ala Asp Glu Ser Thr Gly Thr Ala Ser 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Ser Arg Asp Leu Leu Leu Phe Pro His His Ala Leu Ser Pro 100 105 110

Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Ser 115 120 125

Gly Gly Gly Gly Gly Gly Gly Ser Ala Phe Ser Ser Glu Leu 130 135 140

Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg Val 145 150 155 160

Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln 165 170 175

Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn 180 185 190

Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Gly Asn 195 200 205

Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp 210 215 220

Tyr Tyr Cys Ser Ser Arg Asp Ser Ser Gly Asn His Trp Val Phe Gly 225 230 235 240

Gly Gly Thr Glu Leu Thr Val Leu Gly 245

<210> 1704

<211> 25

<212> PRT

<213> Homo sapiens

<400> 1704

Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe Ala 1 5 10 15

Ser Arg Asn Asp Tyr Ser Tyr Trp Leu 20 25

<210> 1705

<211> 27

<212> PRT

<213> Homo sapiens

<400> 1705

Lys Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp

```
1 5 10 15
```

Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser 20 25

<210> 1706

<211> 25

<212> PRT

<213> Homo sapiens

<400> 1706

Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe Ala 1 5 10 15

Ser Arg Asn Asp Tyr Ser Tyr Trp Leu 20 25

<210>' 1707

<211> 27

<212> PRT

<213> Homo sapiens

<400> 1707

Lys Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp 1 5 10 15

Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser 20 25

<210> 1708

<211> 62

<212> PRT

<213> Homo sapiens

<400> 1708

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Lys Arg
20 25 30

Gly Gly Gly Pro Gly Arg Gly Lys Arg Gly Ile Val Glu Gln Cys Cys 35 40 45

Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1709

<211> 62

<212> PRT

<213> Homo sapiens

<400> 1709

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Lys Arg

20 25 30

Gly Gly Gly Pro Gly Arg Gly Lys Arg Gly Ile Val Glu Gln Cys Cys 35 40 45

Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1710

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1710

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Gly 20 25 30

Gly Pro Gly Lys Lys Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55

<210> 1711

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1711

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Gly 20 25 30

Gly Pro Gly Lys Lys Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55

<210> 1712

<211> 204

<212> PRT

<213> Homo sapiens

<400> 1712

Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
1 5 10 15

Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro
20 25 30

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu

5 40 45

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 60

- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1713

<211> 204

<212> PRT

<213> Homo sapiens

<400> 1713

- Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln 1 5 10 15
- Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30
- Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40 45
- Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 55 60
- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125

- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200
- <210> 1714
- <211> 204
- <212> PRT
- <213> Homo sapiens
- <400> 1714
- Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln 1 5 10 15
- Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30
- Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40
- Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 55 60
- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1715

<211> 200

<212> PRT

<213> Homo sapiens

<400> 1715

Met Ala Phe Thr Glu His Ser Pro Leu Thr Pro His Arg Arg Asp Leu
1 5 10 15

Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys Ile Arg Ser Asp Leu Thr 20 25 30

Ala Leu Thr Glu Ser Tyr Val Lys His Gln Gly Leu Asn Lys Asn Ile 35 40 45

Asn Leu Asp Ser Ala Asp Gly Met Pro Val Ala Ser Thr Asp Gln Trp 50 55 60

Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln Glu Asn Leu Gln Ala Tyr
65 70 75 80

Arg Thr Phe His Val Leu Leu Ala Arg Leu Leu Glu Asp Gln Gln Val 85 90 95

His Phe Thr Pro Thr Glu Gly Asp Phe His Gln Ala Ile His Thr Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Leu Leu Gln Val Ala Ala Phe Ala Tyr Gln Ile Glu Glu Leu Met Ile 115 120 125

Leu Leu Glu Tyr Lys Ile Pro Arg Asn Glu Ala Asp Gly Met Pro Ile 130 135 140

Asn Val Gly Asp Gly Gly Leu Phe Glu Lys Lys Leu Trp Gly Leu Lys 145 150 155 160

Val Leu Gln Glu Leu Ser Gln Trp Thr Val Arg Ser Ile His Asp Leu 165 170 175

Arg Phe Ile Ser Ser His Gln Thr Gly Ile Pro Ala Arg Gly Ser His
180 185 190

Tyr Ile Ala Asn Asn Lys Lys Met 195 200

<210> 1716

<211> 200

<212> PRT

<213> Homo sapiens

<400> 1716

Met Ala Phe Thr Glu His Ser Pro Leu Thr Pro His Arg Arg Asp Leu 1 5 10 15

Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys Ile Arg Ser Asp Leu Thr 20 25 30

Ala Leu Thr Glu Ser Tyr Val Lys His Gln Gly Leu Asn Lys Asn Ile 35 40 Asn Leu Asp Ser Ala Asp Gly Met Pro Val Ala Ser Thr Asp Gln Trp 50 60

Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln Glu Asn Leu Gln Ala Tyr 65 70 75 80

Arg Thr Phe His Val Leu Leu Ala Arg Leu Leu Glu Asp Gln Gln Val 85 90 95

His Phe Thr Pro Thr Glu Gly Asp Phe His Gln Ala Ile His Thr Leu 100 105 110

Leu Leu Gln Val Ala Ala Phe Ala Tyr Gln Ile Glu Glu Leu Met Ile 115 120 125

Leu Leu Glu Tyr Lys Ile Pro Arg Asn Glu Ala Asp Gly Met Pro Ile 130 135 140

Asn Val Gly Asp Gly Gly Leu Phe Glu Lys Lys Leu Trp Gly Leu Lys 145 150 155 160

Val Leu Gln Glu Leu Ser Gln Trp Thr Val Arg Ser Ile His Asp Leu 165 170 175

Arg Phe Ile Ser Ser His Gln Thr Gly Ile Pro Ala Arg Gly Ser His 180 185 190

Tyr Ile Ala Asn Asn Lys Lys Met 195 200

<210> 1717

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1717

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1718

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1718

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr

20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1719

<211> 263

<212> PRT

<213> Homo sapiens

<400> 1719

Met Ala Leu Val Leu Ile Leu Gln Leu Leu Thr Leu Trp Pro Leu Cys

1 5 10 15

His Thr Asp Ile Thr Pro Ser Val Pro Pro Ala Ser Tyr His Pro Lys 20 25 30

Pro Trp Leu Gly Ala Gln Pro Ala Thr Val Val Thr Pro Gly Val Asn 35 40 45

Val Thr Leu Arg Cys Arg Ala Pro Gln Pro Ala Trp Arg Phe Gly Leu 50 55 60

Phe Lys Pro Gly Glu Ile Ala Pro Leu Leu Phe Arg Asp Val Ser Ser 65 70 75 80

Glu Leu Ala Glu Phe Phe Leu Glu Glu Val Thr Pro Ala Gln Gly Gly 85 90 95

Ser Tyr Arg Cys Cys Tyr Arg Arg Pro Asp Trp Gly Pro Gly Val Trp 100 105 110

Ser Gln Pro Ser Asp Val Leu Glu Leu Leu Val Thr Glu Glu Leu Pro 115 120 125

Arg Pro Ser Leu Val Ala Leu Pro Gly Pro Val Val Gly Pro Gly Ala 130 135 140

Asn Val Ser Leu Arg Cys Ala Gly Arg Leu Arg Asn Met Ser Phe Val 145 150 155 160

Leu Tyr Arg Glu Gly Val Ala Ala Pro Leu Gln Tyr Arg His Ser Ala 165 170 175

Gln Pro Trp Ala Asp Phe Thr Leu Leu Gly Ala Arg Ala Pro Gly Thr 180 185 190

Tyr Ser Cys Tyr Tyr His Thr Pro Ser Ala Pro Tyr Val Leu Ser Gln
195 200 205

Arg Ser Glu Val Leu Val Ile Ser Trp Glu Asp Ser Gly Ser Ser Asp 210 215 220

Tyr Thr Arg Gly Asn Leu Val Arg Leu Gly Leu Ala Gly Leu Val Leu 225 230 235 240

Ile Ser Leu Gly Ala Leu Val Thr Phe Asp Trp Arg Ser Gln Asn Arg 245 250 255

Ala Pro Ala Gly Ile Arg Pro 260

<210> 1720

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1720

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr 1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1721

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1721

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Gly 20 25 30

Gly Pro Gly Lys Arg Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55

<210> 1722

<211> 68

<212> PRT

<213> Homo sapiens

<400> 1722

Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn 1 5 10 15

Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His
20 25 30

Asn Phe Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His
35 40 45

Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Leu Gln Asp 50 60

<210> 1723 <211> 166 <212> PRT <213> Homo sapiens <400> 1723 Met Ser Tyr Asn Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln 10 Cys Gln Lys Leu Eur Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln 55 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr 105 Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr 135 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu Thr Gly Tyr Leu Arg Asn 165 <210> 1724 <211> 166 <212> PRT <213> Homo sapiens <400> 1724 Met Ser Tyr Asn Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln Cys Gln Lys Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln

Val His Asn Phe

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn

65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr 130 135 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu 145 150 155 160

Thr Gly Tyr Leu Arg Asn 165

<210> 1725

<211> 166

<212> PRT

<213> Homo sapiens

<400> 1725

Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln 1 5 10 15

Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu 20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln 35 40 45

Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln 50 60

Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn 65 70 75 80

Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn 85 90 95

His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr 100 105 110

Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg 115 120 125

Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr 130 140

Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu 145 150 155 160

Thr Gly Tyr Leu Arg Asn 165

<210> 1726

```
<211> 14
<212> PRT
<213> Homo sapiens
<400> 1726
Ala Gly Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys
 1
                 5
<210> 1727
<211> 180
<212> PRT
<213> Homo sapiens
<400> 1727
Met Lys Ser Ile Tyr Phe Val Ala Gly Leu Phe Val Met Leu Val Gln
Gly Ser Trp Gln Arg Ser Leu Gln Asp Thr Glu Glu Lys Ser Arg Ser
                                25
Phe Ser Ala Ser Gln Ala Asp Pro Leu Ser Asp Pro Asp Gln Met Asn
Glu Asp Lys Arg His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys
Tyr Leu Asp Ser Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn
Thr Lys Arg Asn Arg Asn Asn Ile Ala Lys Arg His Asp Glu Phe Glu
                                     90
Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu
                                105
Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
                           120
Arg Arg Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg
   130
                        135
                                            140
Arg His Ala Asp Gly Ser Phe Ser Asp Glu Met Asn Thr Ile Leu Asp
                                       155
Asn Leu Ala Ala Arg Asp Phe Ile Asn Trp Leu Ile Gln Thr Lys Ile
Thr Asp Arg Lys
           180
```

 His Lys Leu Gln Thr Tyr Pro Arg Thr Asn Thr Gly Ser Gly Thr Pro
20 25 30

Gly

<210> 1729

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1729

Phe Val Asn Gln His Leù Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1730

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1730

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1731

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1731

Ala Gly Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys 1 5 10

<210> 1732

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1732

Ser Ala Asn Ser Asn Pro Ala Met Ala Pro Arg Glu Arg Lys Ala Gly
1 5 10 15

Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys 20 25

<210> 1733

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1733

Ser Ala Asn Ser Asn Pro Ala Met Ala Pro Arg Glu Arg Lys Ala Gly
1 5 10 15

Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys 20 25

<210> 1734

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1734

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg Arg
20 25 30

Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Pro
35 40 45

Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys
50 55 60

Arg Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln 65 70 75 80

Leu Glu Asn Tyr Cys Asn 85

<210> 1735

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1735

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys
1 5 10 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1736

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1736

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys

1 10 15

Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40 45

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1737

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1737

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys
1 5 10 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val
50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1738

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1738

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys
1 5 10 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp $20 \hspace{1cm} 25 \hspace{1cm} 30$

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40 45

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65

<210> 1739

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1739

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys
1 5 10 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp
20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 55 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1740

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1740

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys

1 10 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40 45

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1741

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1741

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys
1 5 10 15

Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1742

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1742

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys

1 10 15

Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp
20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40 45

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 65 70

<210> 1743

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1743

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys

1 10 15

Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile 35 40

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val
50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn

65 70

<210> 1744

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1744

Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro Ser Glu Cys 1 5 10 . 15

Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg Ile Met Asp 20 25 30

Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile Val Phe Ile $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp Lys Trp Val 50 60

Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn
65

<210> 1745

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1745

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1746

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1746

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn

50 55 60

<210> 1747

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1747

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1748

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1748

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr 1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1749

<211> 204

<212> PRT

<213> Homo sapiens

<400> 1749

Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
1 5 10 15

Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu
35 40 45

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys
50 . 55 60

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80

- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1750

<211> 204

<212> PRT

<213> Homo sapiens

- Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
 1 5 10 15
- Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30
- Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40 45
- Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 55 60
- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg

165 170 175

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1751

<211> 204

<212> PRT

<213> Homo sapiens

<400> 1751

Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
1 5 10 15

Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40 45

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys
50 60

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 100 105 110

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1752

<211> 204

<212> PRT

<213> Homo sapiens

- Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln 1 5 10 15
- Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30
- Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40
- Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys $50 \hspace{1cm} 55 \hspace{1cm} 60$
- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95
- Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
 100 105 110
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1753

<211> 204

<212> PRT

<213> Homo sapiens

- Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln
 1 5 10 15
- Leu Leu Trp His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro
 20 25 30
- Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40 45
- Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 60
- Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 65 70 75 80
- Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser

85 90 95

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
100 105 110

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 1754

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1754

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr 1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1755

<211> 62

<212> PRT

<213> Homo sapiens

<400> 1755

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Lys Arg
20 25 30

Gly Gly Gly Pro Gly Arg Gly Lys Arg Gly Ile Val Glu Gln Cys Cys 35 40 45

Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

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<210> 1756
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<212> PRT

<213> Homo sapiens

<400> 1756

Met Leu Val Ala Gly Phe Leu Leu Ala Leu Pro Pro Ser Trp Ala Ala 1 5 10 15

Gly Ala Pro Arg Ala Gly Arg Arg Pro Ala Arg Pro Arg Gly Cys Ala
20 25 30

Asp Arg Pro Glu Glu Leu Leu Glu Gln Leu Tyr Gly Arg Leu Ala Ala 35 40 45

Gly Val Leu Ser Ala Phe His His Thr Leu Gln Leu Gly Pro Arg Glu 50 60

Gln Ala Arg Asn Ala Ser Cys Pro Ala Gly Gly Arg Pro Ala Asp Arg 65 70 75 80

Arg Phe Arg Pro Pro Thr Asn Leu Arg Ser Val Ser Pro Trp Ala Tyr 85 90 95

Arg Ile Ser Tyr Asp Pro Ala Arg Tyr Pro Arg Tyr Leu Pro Glu Ala 100 105 110

Tyr Cys Leu Cys Arg Gly Cys Leu Thr Gly Leu Phe Gly Glu Glu Asp 115 120 125

Val Arg Phe Arg Ser Ala Pro Val Tyr Met Pro Thr Val Val Leu Arg 130 135 140

Arg Thr Pro Ala Cys Ala Gly Gly Arg Ser Val Tyr Thr Glu Ala Tyr 145 150 155 160

Val Thr Ile Pro Val Gly Cys Thr Cys Val Pro Glu Pro Glu Lys Asp 165 170 175

Ala Asp Ser Ile Asn Ser Ser Ile Asp Lys Gln Gly Ala Lys Leu Leu 180 185 190

Leu Gly Pro Asn Asp Ala Pro Ala Gly Pro 195 200

<210> 1757

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1757

Gly Gly Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys 1 5 10

<210> 1758

<211> 202

<212> PRT

<213> Homo sapiens

<400> 1758

Met Leu Val Ala Gly Phe Leu Leu Ala Leu Pro Pro Ser Trp Ala Ala 1 5 10 15

Gly Ala Pro Arg Ala Gly Arg Arg Pro Ala Arg Pro Arg Gly Cys Ala
20 25 30

Asp Arg Pro Glu Glu Leu Leu Glu Gln Leu Tyr Gly Arg Leu Ala Ala 35 40 45

Gly Val Leu Ser Ala Phe His His Thr Leu Gln Leu Gly Pro Arg Glu
50 55 60

Gln Ala Arg Asn Ala Ser Cys Pro Ala Gly Gly Arg Pro Ala Asp Arg 65 70 75 80

Arg Phe Arg Pro Pro Thr Asn Leu Arg Ser Val Ser Pro Trp Ala Tyr 85 90 95

Arg Ile Ser Tyr Asp Pro Ala Arg Tyr Pro Arg Tyr Leu Pro Glu Ala 100 105 110

Tyr Cys Leu Cys Arg Gly Cys Leu Thr Gly Leu Phe Gly Glu Glu Asp 115 120 125

Val Arg Phe Arg Ser Ala Pro Val Tyr Met Pro Thr Val Val Leu Arg 130 135 140

Arg Thr Pro Ala Cys Ala Gly Gly Arg Ser Val Tyr Thr Glu Ala Tyr 145 150 155 160

Val Thr Ile Pro Val Gly Cys Thr Cys Val Pro Glu Pro Glu Lys Asp 165 170 175

Ala Asp Ser Ile Asn Ser Ser Ile Asp Lys Gln Gly Ala Lys Leu Leu 180 185 190

Leu Gly Pro Asn Asp Ala Pro Ala Gly Pro 195 200

<210> 1759

<211> 229

<212> PRT

<213> Homo sapiens

<400> 1759

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Ser
1 5 10 15

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu 20 25 30

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu 35 40

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys 50 55

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro 85 90 95

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr 100 105 110

Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr 115 120 125

Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile 130 135 140

Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro 145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser 165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser 180 185 190

Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys 195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg 210 215 220

Ser Gln Ser Glu Leu 225

<210> 1760

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1760

Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu Cys Ala Ala 1 5 10 15

Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln Ser Lys Ser 20 25 30

Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu 35 40

Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser 50 60

Gln Leu Ser Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly Ser Ala Cys 65 70 75 80

Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro Glu Ser Arg 85 90 95

Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys Ala Gln
100 105 110

Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln Gln Arg 115 120 125 His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln Ser Gln Phe 130 135 140

Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala Lys Pro Ala 145 150 155 160

Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp Pro Ala His 165 170 175

Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln Glu Leu Phe 180 185 190

Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln Pro Gln Gly
195 200 205

Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp Gly Gly Trp 210 215 220

Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe Asn Arg Pro 225 230 235 240

Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly Glu Phe Trp 245 250 255

Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg Asn Ser Arg 260 265 270

Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu Leu Leu Gln 275 280 285

Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser Leu Gln Leu 290 295 300

Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val Pro Pro Ser 305 310 315 320

Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His Asp Leu Arg 325 330 335

Arg Asp Lys Asn Cys Ala Lys Ser Leu Ser Gly Gly Trp Trp Phe Gly 340 345 350

Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe Arg Ser Ile Pro 355 360 365

Gln Gln Arg Gln Lys Leu Lys Lys Gly Ile Phe Trp Lys Thr Trp Arg 370 375 380

Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Met Leu Ile Gln Pro Met 385 390 395 400

Ala Ala Glu Ala Ala Ser 405

<210> 1761

<211> 158

<212> PRT

<213> Homo sapiens

- Met Ala Ser Arg Ser Met Arg Leu Leu Leu Leu Ser Cys Leu Ala 1 5 10
- Lys Thr Gly Val Leu Gly Asp Ile Ile Met Arg Pro Ser Cys Ala Pro 20 25 30
- Gly Trp Phe Tyr His Lys Ser Asn Cys Tyr Gly Tyr Phe Arg Lys Leu 35 40
- Arg Asn Trp Ser Asp Ala Glu Leu Glu Cys Gln Ser Tyr Gly Asn Gly 50 60
- Ala His Leu Ala Ser Ile Leu Ser Leu Lys Glu Ala Ser Thr Ile Ala 65 70 75 80
- Glu Tyr Ile Ser Gly Tyr Gln Arg Ser Gln Pro Ile Trp Ile Gly Leu 85 90 95
- His Asp Pro Gln Lys Arg Gln Gln Trp Gln Trp Ile Asp Gly Ala Met
 100 105 110
- Tyr Leu Tyr Arg Ser Trp Ser Gly Lys Ser Met Gly Gly Asn Lys His 115 120 125
- Cys Ala Glu Met Ser Ser Asn Asn Phe Leu Thr Trp Ser Ser Asn 130 135 140
- Glu Cys Asn Lys Arg Gln His Phe Leu Cys Lys Tyr Arg Pro 145 150 155
- <210> 1762
- <211> 154
- <212> PRT
- <213> Homo sapiens
- <400> 1762
- Ala Ser Leu Ile Gln Ala Thr Ser Arg Gln Arg Gly Val Met Gly Phe 1 5 10 15
- Gln Lys Phe Ser Pro Phe Leu Ala Leu Ser Ile Leu Val Leu Gln
 20 25 30
- Ala Gly Ser Leu His Ala Ala Pro Phe Arg Ser Ala Leu Glu Ser Ser 35 40 45
- Pro Ala Asp Pro Ala Thr Leu Ser Glu Asp Glu Ala Arg Leu Leu 50 55 60
- Ala Ala Leu Val Gln Asp Tyr Val Gln Met Lys Ala Ser Glu Leu Glu 65 70 75 80
- Gln Glu Gln Glu Arg Glu Gly Ser Ser Leu Asp Ser Pro Arg Ser Lys
 85 90 95
- Arg Cys Gly Asn Leu Ser Thr Cys Met Leu Gly Thr Tyr Thr Gln Asp 100 105 110
- Phe Asn Lys Phe His Thr Phe Pro Gln Thr Ala Ile Gly Val Gly Ala 115 120 125
- Pro Gly Lys Lys Arg Asp Met Ser Ser Asp Leu Glu Arg Asp His Arg

130 135 140

Pro His Asn His Cys Pro Glu Glu Ser Leu 145 150

<210> 1763

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1763

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys \$35\$ \$40\$ \$45\$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1764

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1764

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1765

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1765

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys
35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn

50 55 60

<210> 1766

<211> 25

<212> PRT

<213> Homo sapiens

<400> 1766

Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val Cys Asn Phe Ala 1 5 10 15

Ser Arg Asn Asp Tyr Ser Tyr Trp Leu 20 25

<210> 1767

<211> 27

<212> PRT

<213> Homo sapiens

<400> 1767

Lys Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp 1 5 10 15

Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser

<210> 1768

<211> 39

<212> PRT

<213> Homo sapiens

<400> 1768

Trp Gln Glu Trp Glu Gln Lys Ile Thr Ala Leu Leu Glu Gln Ala Gln 1 5 10 15

Ile Gln Gln Glu Lys Asn Glu Tyr Glu Leu Gln Lys Leu Asp Lys Trp
20 25 30

Ala Ser Leu Trp Glu Trp Phe 35

<210> 1769

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1769

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ser Glu Cys Cys Phe Thr Tyr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85

<210> 1770

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1770

Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn 1 5 10 15

Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His 20 25 30

Asn Phe

<210> 1771

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1771

Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn 1 5 10 15

Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His 20 25 30

Asn Phe

<210> 1772

<211> 191

<212> PRT

<213> Homo sapiens

<400> 1772

Phe Pro Thr Ile Pro Leu Ser Arg Leu Phe Asp Asn Ala Met Leu Arg

1 10 15

Ala His Arg Leu His Gln Leu Ala Phe Asp Thr Tyr Gln Glu Phe Glu 20 25 30

Glu Ala Tyr Ile Pro Lys Glu Gln Lys Tyr Ser Phe Leu Gln Asn Pro 35 40

Gln Thr Ser Leu Cys Phe Ser Glu Ser Ile Pro Thr Pro Ser Asn Arg 50 55 60

Glu Glu Thr Gln Gln Lys Ser Asn Leu Glu Leu Leu Arg Ile Ser Leu 65 70 75 80

Leu Leu Ile Gln Ser Trp Leu Glu Pro Val Gln Phe Leu Arg Ser Val 85 90 95

Phe Ala Asn Ser Leu Val Tyr Gly Ala Ser Asp Ser Asn Val Tyr Asp 100 105 110

Leu Leu Lys Asp Leu Glu Glu Gly Ile Gln Thr Leu Met Gly Arg Leu 115 120 125

Glu Asp Gly Ser Pro Arg Thr Gly Gln Ile Phe Lys Gln Thr Tyr Ser 130 135 140

Lys Phe Asp Thr Asn Ser His Asn Asp Asp Ala Leu Leu Lys Asn Tyr 145 150 155 160

Gly Leu Leu Tyr Cys Phe Arg Lys Asp Met Asp Lys Val Glu Thr Phe 165 170 175

Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe 180 185 190

<210> 1773

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1773

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys
35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55 60

<210> 1774

<211> 76

<212> PRT

<213> Homo sapiens

<400> 1774

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr
20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys
35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn Asp

50 55 60

Ala His Lys Ser Glu Val Ala His Arg Phe Lys Val 65 70 75

<210> 1775

<211> 180

<212> PRT

<213> Homo sapiens

<400> 1775

Met Lys Ser Ile Tyr Phe Val Ala Gly Leu Phe Val Met Leu Val Gln
1 5 10 15

Gly Ser Trp Gln Arg Ser Leu Gln Asp Thr Glu Glu Lys Ser Arg Ser 20 25 30

Phe Ser Ala Ser Gln Ala Asp Pro Leu Ser Asp Pro Asp Gln Met Asn 35 40 45

Glu Asp Lys Arg His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys 50 60

Tyr Leu Asp Ser Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn 65 70 75 80

Thr Lys Arg Asn Arg Asn Asn Ile Ala Lys Arg His Asp Glu Phe Glu 85 90 95

Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 100 105 110

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly 115 120 125

Arg Arg Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg 130 135 140

Arg His Ala Asp Gly Ser Phe Ser Asp Glu Met Asn Thr Ile Leu Asp 145 150 155 160

Asn Leu Ala Ala Arg Asp Phe Ile Asn Trp Leu Ile Gln Thr Lys Ile 165 170 175

Thr Asp Arg Lys 180

<210> 1776

<211> 180

<212> PRT

<213> Homo sapiens

<400> 1776

Met Lys Ser Ile Tyr Phe Val Ala Gly Leu Phe Val Met Leu Val Gln
1 5 10 15

Gly Ser Trp Gln Arg Ser Leu Gln Asp Thr Glu Glu Lys Ser Arg Ser 20 25 30 Phe Ser Ala Ser Gln Ala Asp Pro Leu Ser Asp Pro Asp Gln Met Asn 35 40 45

Glu Asp Lys Arg His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys 50 60

Tyr Leu Asp Ser Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn 65 70 75 80

Thr Lys Arg Asn Arg Asn Asn Ile Ala Lys Arg His Asp Glu Phe Glu 85 90 95

Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 100 105 110

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly 115 120 125

Arg Arg Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg 130 135 140

Arg His Ala Asp Gly Ser Phe Ser Asp Glu Met Asn Thr Ile Leu Asp 145 150 155 160

Asn Leu Ala Ala Arg Asp Phe Ile Asn Trp Leu Ile Gln Thr Lys Ile 165 170 175

Thr Asp Arg Lys 180

<210> 1777

<211> 12

<212> PRT

<213> Homo sapiens

<400> 1777

Thr Ala Asp Ala Ala Ala Ala Arg Asn Ala Val Ser 1 5 . 10

<210> 1778

<211> 12

<212> PRT

<213> Homo sapiens

<400> 1778

Thr Ala Asp Ala Ala Ala Ala Arg Asn Ala Val Ser 1 5 10

<210> 1779

<211> 79

<212> PRT

<213> Homo sapiens

<400> 1779

Asn Gln Arg Ala His Gly Gln Asp Leu Gly Thr Leu Gly Ser Cys Leu 1 5 10 15

Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val

Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Tyr Trp Leu Ser Thr Pro

Ala Leu Met Pro Met Asn Met Ala Pro Ile Thr Gly Arg Ala Leu Glu

Pro Tyr Ile Ser Arg Cys Thr Val Cys Glu Gly Pro Ala Ile Ala

<210> 1780 <211> 79

<212> PRT

<213> Homo sapiens

<400> 1780

Asn Gln Arg Ala His Gly Gln Asp Leu Gly Thr Leu Gly Ser Cys Leu

Gln Arg Phe Thr Thr Met Pro Phe Leu Phe Cys Asn Val Asn Asp Val 25

Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser Tyr Trp Leu Ser Thr Pro

Ala Leu Met Pro Met Asn Met Ala Pro Ile Thr Gly Arg Ala Leu Glu

Pro Tyr Ile Ser Arg Cys Thr Val Cys Glu Gly Pro Ala Ile Ala

<210> 1781

<211> 229

<212> PRT

<213> Homo sapiens

<400> 1781

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Ser

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr

- Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr 115 120 125
- Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile 130 135 140
- Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro 145 150 155 160
- Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser 165 170 175
- Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser 180 185 190
- Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys 195 200 205
- Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg 210 215 220

Ser Gln Ser Glu Leu

<210> 1782

<211> 229

<212> PRT

<213> Homo sapiens

- Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Ser
 1 5 10 15
- Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu 20 25 30
- Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu 35 40
- Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys 50 60
- Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser 65 70 75 80
- Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro
 85 90 95
- Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr 100 105 110
- Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr 115 120 125
- Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile 130 135 140
- Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro 145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser 165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser 180 185 190

Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys 195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg 210 215 220

Ser Gln Ser Glu Leu 225

<210> 1783

<211> 229

<212> PRT

<213> Homo sapiens

<400> 1783

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Ser 1 5 10 15

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu 20 25 30

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu 35 40

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys 50 55 60

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser 65 70 75 80

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro 85 90 95

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr 100 105 110

Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr 115 120 125

Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile 130 135 140

Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro 145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser 165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser 180 185 190

Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Lys 195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg

210 215 220

Ser Gln Ser Glu Leu 225

<210> 1784

<211> 229

<212> PRT

<213> Homo sapiens

<400> 1784

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Ser
1 5 10 15

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu 20 25 30

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys 50 60

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser 65 70 75 80

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro 85 90 95

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr 100 105 110

Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr 115 120 125

Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile 130 135 140

Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro 145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser 165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser 180 185 190

Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Lys Arg Arg Lys 195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg 210 215 220

Ser Gln Ser Glu Leu 225

<210> 1785

<211> 244

<212> PRT

<213> Homo sapiens

<400> 1785

Met Leu Leu Gly Ala Val Leu Leu Leu Ala Leu Pro Gly His
1 5 10 15

Asp Gln Glu Thr Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro 20 25 30

Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly 35 40

His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
50 60

Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile 65 70 75 80

Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly 85 90 95

Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg 100 105 110

Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met 115 120 125

Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp 130 135 140

Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe 145 150 155 160

Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe 165 170 175

Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn 180 185 190

Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly
195 200 205

Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu 210 215 220

Tyr Ala Asp Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr 225 . 230 235 240

His Asp Thr Asn

<210> 1786

<211> 244

<212> PRT

<213> Homo sapiens

<400> 1786

Met Leu Leu Gly Ala Val Leu Leu Leu Leu Ala Leu Pro Gly His 1 5 10 15

Asp Gln Glu Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro

20 25 30

Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly
His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
50

Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile
65

Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly
85

Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg 100 105 110

Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met 115 120 125

Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp 130 135 140

Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe 145 150 155 160

Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe 165 170 175

Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn 180 185 190

Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly 195 200 205

Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu 210 215 220

Tyr Ala Asp Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr 225 230 235 240

His Asp Thr Asn

<210> 1787

<211> 244

<212> PRT

<213> Homo sapiens

<400> 1787

Met Leu Leu Gly Ala Val Leu Leu Leu Ala Leu Pro Gly His 1 5 10

Asp Gln Glu Thr Thr Gln Gly Pro Gly Val Leu Leu Pro Leu Pro
20 25 30

Lys Gly Ala Cys Thr Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly 35 40 45

His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
50 60

Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met 120 125 Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp 135 Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe 165 170 Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly 200 Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu 215 Tyr Ala Asp Asn Asp Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His Asp Thr Asn

<210> 1788

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1788

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro 20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile $50 \hspace{1cm} 55 \hspace{1cm} 60$

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp
65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 90

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<210> 1789
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<212> PRT

<213> Homo sapiens

<400> 1789

Met Lys Leu Ala Tyr Ser Leu Leu Leu Pro Leu Ala Gly Val Ser Ala 1 5 10 15

Ser Val Ile Asn Tyr Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp 20 25 30

Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Val Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser 50 55 60

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 65 70 75 80

Lys Gly Arg

<210> 1790

<211> 145

<212> PRT

<213> Homo sapiens

<400> 1790

Met Arg Phe Pro Ser Ile Phe Thr Ala Val Leu Phe Ala Ala Ser Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Leu Ala Ala Pro Val Asn Thr Thr Thr Glu Asp Glu Thr Ala Gln
20 25 30

Ile Pro Ala Glu Ala Val Ile Gly Tyr Ser Asp Leu Glu Gly Asp Phe 35 40

Asp Val Ala Val Leu Pro Phe Ser Asn Ser Thr Asn Asn Gly Leu Leu 50 55 60

Phe Ile Asn Thr Thr Ile Ala Ser Ile Ala Ala Lys Glu Glu Gly Val 65 70 75 80

Ser Leu Asp Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser 85 90 95

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 100 105 110

Lys Gly Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr 115 120 125

Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
130 135 140

Arg

145

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<210> 1791
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<212> PRT

<213> Homo sapiens

<400> 1791

Met Phe Lys Ser Val Val Tyr Ser Ile Leu Ala Ala Ser Leu Ala Asn 1 5 10 15

Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 20 25 30

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln 50 60

Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
65 70 75

<210> 1792

<211> 145

<212> PRT

<213> Homo sapiens

<400> 1792

Met Arg Phe Pro Ser Ile Phe Thr Ala Val Leu Phe Ala Ala Ser Ser 1 5 10 15

Ala Leu Ala Ala Pro Val Asn Thr Thr Thr Glu Asp Glu Thr Ala Gln 20 25 30

Ile Pro Ala Glu Ala Val Ile Gly Tyr Ser Asp Leu Glu Gly Asp Phe 35 40 45

Asp Val Ala Val Leu Pro Phe Ser Asn Ser Thr Asn Asn Gly Leu Leu 50 55 60

Phe Ile Asn Thr Thr Ile Ala Ser Ile Ala Ala Lys Glu Glu Gly Val 65 70 75 80

Ser Leu Asp Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser 85 90 95

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 100 105 110

Lys Gly Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr 115 120 125

Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly 130 135 140

Arg

145

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<210> 1793
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<212> PRT

<213> Homo sapiens

<400> 1793

Met Lys Leu Ala Tyr Ser Leu Leu Leu Pro Leu Ala Gly Val Ser Ala
1 5 10 15

Ser Val Ile Asn Tyr Lys Arg His Gly Glu Gly Thr Phe Thr Ser Asp $20 \\ 25 \\ 30$

Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp 35 40

Leu Val Lys Gly Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser 50 60

Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val 65 70 75 80

Lys Gly Arg

<210> 1794

<211> 77

<212> PRT

<213> Homo sapiens

<400> 1794

Met Phe Lys Ser Val Val Tyr Ser Ile Leu Ala Ala Ser Leu Ala Asn 1 5 10 15

Ala His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu 20 25 30

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His
35 40 45

Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln 50 60

Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
65 70 75

<210> 1795

<211> 31

<212> PRT

<213> Homo sapiens

<400> 1795

Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Pro
1 5 10 15

Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln
20 25 30

<210> 1796

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1796

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro 20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85

<210> 1797

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1797

Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val Lys His Trp Pro 1 5 10 15

Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg Val Val Glu Pro 20 25 30

Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro Val Gln Lys Pro 35 40 45

Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln Gly Arg Gly Pro 50 60

Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly 65 70 75 80

Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro
85 90 95

Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro
100 105 110

Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr 115 120 125

His Pro Gln 130

<210> 1798

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<211> 36
<212> PRT
<213> Homo sapiens
<400> 1798
Tyr Pro Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu
Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr
                                 25
Arg Gln Arg Tyr
     35
<210> 1799
<211> 34
<212> PRT
<213> Homo sapiens
<400> 1799
Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn
Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln
Arg Tyr
<210> 1800
<211> 34
<212> PRT
<213> Homo sapiens
<400> 1800
Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn
Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln
Arg Tyr
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<210> 1801 <211> 34 <212> PRT <213> Homo sapiens

<400> 1801

Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn
1 5 10 15

Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln

Arg Tyr

Arg Ile Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
20 25 30

<210> 1803 <211> 65 <212> PRT <213> Homo sapiens

 $<\!400\!>$ 1803 Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile

Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser

10

Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr 35 40 45

Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu 50 60

Asn 65

<210> 1804 <211> 67 <212> PRT <213> Homo sapiens

<400> 1804

Lys Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln

Arg Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Tyr

Cys Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val

Cys Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met 50 60

Lys Glu Asn 65

<210> 1805 <211> 63 <212> PRT

<213> Homo sapiens

<400> 1805

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1806

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1806

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Gly Tyr 20 25 30

Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Glu Gln Cys 35 40 45

Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 60

<210> 1807

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1807

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys

1 5 10 15

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys 20 25 30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys 35 40 45

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 60

Glu Asn

65

<210> 1808

<211> 30

<212> PRT

<213> Homo sapiens

<400> 1808

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg 20 25 30

<210> 1809

<211> 389

<212> PRT

<213> Homo sapiens

<400> 1809

Met Leu Glu Glu Pro Arg Pro Arg Pro Pro Pro Ser Gly Leu Ala Gly 1 5 10 15

Leu Leu Phe Leu Ala Leu Cys Ser Arg Ala Leu Ser Asn Glu Ile Leu 20 25 30

Gly Leu Lys Leu Pro Gly Glu Pro Pro Leu Thr Ala Asn Thr Val Cys 35 40 45

Leu Thr Leu Ser Gly Leu Ser Lys Arg Gln Leu Asp Leu Cys Leu Arg 50 55 60

Asn Pro Asp Val Thr Ala Ser Ala Leu Gln Gly Leu His Ile Ala Val 65 70 75 80

His Glu Cys Gln His Gln Leu Arg Asp Gln Arg Trp Asn Cys Ser Ala 85 90 95

Leu Glu Gly Gly Arg Leu Pro His His Ser Ala Ile Leu Lys Arg 100 105 110

Gly Phe Arg Glu Ser Ala Phe Ser Phe Ser Met Leu Ala Ala Gly Val 115 120 125

Met His Ala Val Ala Thr Ala Cys Ser Leu Gly Lys Leu Val Ser Cys 130 135 140

Gly Cys Gly Trp Lys Gly Ser Gly Glu Gln Asp Arg Leu Arg Ala Lys 145 150 155 160

Leu Leu Gln Leu Gln Ala Leu Ser Arg Gly Lys Ser Phe Pro His Ser 165 170 175

Leu Pro Ser Pro Gly Pro Gly Ser Ser Pro Ser Pro Gly Pro Gln Asp 180 185 190

Thr Trp Glu Trp Gly Gly Cys Asn His Asp Met Asp Phe Gly Glu Lys 195 200 205

Phe Ser Arg Asp Phe Leu Asp Ser Arg Glu Ala Pro Arg Asp Ile Gln 210 215 220

Ala Arg Met Arg Ile His Asn Asn Arg Val Gly Arg Gln Val Val Thr 225 230 235 240

- Glu Asn Leu Lys Arg Lys Cys Lys Cys His Gly Thr Ser Gly Ser Cys 245 250 255
- Gln Phe Lys Thr Cys Trp Arg Ala Ala Pro Glu Phe Arg Ala Val Gly
 260 265 270
- Ala Ala Leu Arg Glu Arg Leu Gly Arg Ala Ile Phe Ile Asp Thr His 275 280 285
- Asn Arg Asn Ser Gly Ala Phe Gln Pro Arg Leu Arg Pro Arg Leu 290 295 300
- Ser Gly Glu Leu Val Tyr Phe Glu Lys Ser Pro Asp Phe Cys Glu Arg 305 310 315 320
- Asp Pro Thr Met Gly Ser Pro Gly Thr Arg Gly Arg Ala Cys Asn Lys 325 330 335
- Thr Ser Arg Leu Leu Asp Gly Cys Gly Ser Leu Cys Cys Gly Arg Gly 340 345 350
- His Asn Val Leu Arg Gln Thr Arg Val Glu Arg Cys His Cys Arg Phe 355 360 365
- His Trp Cys Cys Tyr Val Leu Cys Asp Glu Cys Lys Val Thr Glu Trp $_{\rm 370}$ 375 380

Val Asn Val Cys Lys

<210> 1810

<211> 354

<212> PRT

<213> Homo sapiens

<400> 1810

Met Arg Ala Arg Pro Gln Val Cys Glu Ala Leu Leu Phe Ala Leu Ala 1 5 . 10 15

Leu Gln Thr Gly Val Cys Tyr Gly Ile Lys Trp Leu Ala Leu Ser Lys 20 25 30

Thr Pro Ser Ala Leu Ala Leu Asn Gln Thr Gln His Cys Lys Gln Leu 35 40

Glu Gly Leu Val Ser Ala Gln Val Gln Leu Cys Arg Ser Asn Leu Glu 50 60

Leu Met His Thr Val Val His Ala Ala Arg Glu Val Met Lys Ala Cys
65 70 75 80

Arg Arg Ala Phe Ala Asp Met Arg Trp Asn Cys Ser Ser Ile Glu Leu 85 90 95

Ala Pro Asn Tyr Leu Leu Asp Leu Glu Arg Gly Thr Arg Glu Ser Ala 100 105 110

Phe Val Tyr Ala Leu Ser Ala Ala Ala Ile Ser His Ala Ile Ala Arg 115 120 125

Ala Cys Thr Ser Gly Asp Leu Pro Gly Cys Ser Cys Gly Pro Val Pro

130 135 140

Gly Glu Pro Pro Gly Pro Gly Asn Arg Trp Gly Gly Cys Ala Asp Asn 150 155 Leu Ser Tyr Gly Leu Leu Met Gly Ala Lys Phe Ser Asp Ala Pro Met Lys Val Lys Lys Thr Gly Ser Gln Ala Asn Lys Leu Met Arg Leu His 185 Asn Ser Glu Val Gly Arg Gln Ala Leu Arg Ala Ser Leu Glu Met Lys 200 Cys Lys Cys His Gly Val Ser Gly Ser Cys Ser Ile Arg Thr Cys Trp Lys Gly Leu Gln Glu Leu Gln Asp Val Ala Asp Leu Lys Thr Arg Tyr Leu Ser Ala Thr Lys Val Val His Arg Pro Met Gly Thr Arg Lys His Leu Val Pro Lys Asp Leu Asp Ile Arg Pro Val Lys Asp Ser Glu 265 Leu Val Tyr Leu Gln Ser Ser Pro Asp Phe Cys Met Lys Asn Glu Lys Val Gly Ser His Gly Thr Gln Asp Arg Gln Cys Asn Lys Thr Ser Asn Gly Ser Asp Ser Cys Asp Leu Met Cys Cys Gly Arg Gly Tyr Asn Pro 310 Tyr Thr Asp Arg Val Val Glu Arg Cys His Cys Lys Tyr His Trp Cys 330 Cys Tyr Val Thr Cys Arg Arg Cys Glu Arg Thr Val Glu Arg Tyr Val

Cys Lys

<210> 1811

<211> 419

<212> PRT

<213> Homo sapiens

<400> 1811

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu 1 5 10 15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
20 25 30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His 35 40 45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr 50 60

Leu 65	Pro	Thr	Asn	Ala	Ser 70	Leu	Ser	Phe	Leu	Gln 75	Asp	Ile	G1n	Glu	Val 80
Gln	Gly	Tyr	Val	Leu 85	Ile	Ala	His	Asn	Gln 90	Val	Arg	Gln	Val	Pro 95	Leu
Gln	Arg	Leu	Arg 100	Ile	Val	Arg	Gly	Thr 105	Gln	Leu	Phe	Glu	Asp 110	Asn	Tyr
Ala	Leu	Ala 115	Val	Leu	Asp	Asn	Gly 120	Asp	Pro	Leu	Asn	Asn 125	Thr	Thr	Pro
Val	Thr 130	Gly	Ala	Ser	Pro	Gly 135	Gly	Leu	Arg	Glu	Leu 140	Gln	Leu	Arg	Ser
Leu 145	Thr	Glu	Ile	Leu	Lys 150	Gly	Gly	Val	Leu	Ile 155	Gln	Arg	Asn	Pro	Gln 160
Leu	Cys	Tyr	Gln	Asp 165	Thr	Ile	Leu	Trp	Lys 170	Asp	Ile	Phe	His	Lys 175	Asn
Asn	Gln	Leu	Ala 180	Leu	Thr	Leu	Ile	Asp 185	Thr	Asn	Arg	Ser	Arg 190	Ala	Суѕ
His	Pro	Суs 195	Ser	Pro	Met	Cys	Lys 200	Gly	Ser	Arg	Cys	Trp 205	Gly	Glu	Ser
Ser	Glu 210	Asp	Cys	Gln	Ser	Leu 215	Thr	Arg	Thr	Val	Cys 220	Ala	Gly	Gly	Cys
Ala 225	Arg	Суѕ	Lys	Gly	Pro 230	Leu	Pro	Thr	Asp	Cys 235	Cys	His	Glu	Gln	Cys 240
Ala	Ala	Gly	Cys	Thr 245	Gly	Pro	Lys	His	Ser 250	Asp	Cys	Leu	Ala	Cys 255	Leu
His	Phe	Asn	His 260	Ser	Gly	Ile	Cys	G1u 265	Leu	His	Суѕ	Pro	Ala 270	Leu	Val
Thr	Tyr	Asn 275	Thr	Asp	Thr	Phe	G1u 280	Ser	Met	Pro	Asn	Pro 285	Glu	Gly	Arg
Tyr	Thr 290	Phe	Gly	Ala	Ser	Cys 295	Val	Thr	Ala	Cys	Pro 300	Tyr	Asn	Tyr	Leu
Ser 305	Thr	Asp	Val	Gly	Ser 310	Cys	Thr	Leu	Val	Cys 315	Pro	Leu	His	Asn	Gln 320
Glu	Val	Thr	Ala	G1u 325	Asp	Gly	Thr	Gln	Arg 330	Cys	Glu	Lys	Cys	Ser 335	Lys
Pro	Суѕ	Ala	Arg 340	Gly	Thr	His	Ser	Leu 345	Pro	Pro	Arg	Pro	A1a 350	Ala	Val
Pro	Val	Pro 355	Leu	Arg	Met	Gln	Pro 360	Gly	Pro	Ala	His	Pro 365	Val	Leu	Ser
Phe	Leu 370	Arg	Pro	Ser	Trp	Asp 375	Leu	Val	Ser	Ala	Phe 380	Tyr	Ser	Leu	Pro
Leu 385	Ala	Pro	Leu	Ser	Pro 390	Thr	Ser	Val	Pro	Ile 395	Ser	Pro	Val	Ser	Val 400

Gly Arg Gly Pro Asp Pro Asp Ala His Val Ala Val Asp Leu Ser Arg
405 410 415

Tyr Glu Gly

<210> 1812

<211> 26

<212> PRT

<213> Homo sapiens

<400> 1812

Ala His Gln Ile Tyr Gln Phe Thr Asp Lys Asp Lys Asp Asn Val Ala 1 5 10 15

Pro Arg Ser Lys Ile Ser Pro Gln Gly Tyr
20 25

<210> 1813

<211> 68

<212> PRT

<213> Homo sapiens

<400> 1813

Glu Ala Ala Leu Gly Leu Glu Ala Glu Asp Leu Gln Val Gly Gln Val 1 5 10 15

Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu 20 25 30

Glu Gly Ser Leu Gln Glu Ala Glu Asp Leu Gln Val Gly Gln Val Glu 35 40 45

Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu 50 60

Gly Ser Leu Gln 65

<210> 1814

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1814

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile

1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 90

<210> 1815

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1815

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro $20 \\ 25 \\ 30$

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 55 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85

<210> 1816

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1816

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile
50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85

<210> 1817

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1817

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 55 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 90

<210> 1818

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1818

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg 35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 55 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 90

<210> 1819

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1819

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Ala Thr Ser Ala Asp Cys Cys Ile Ser Tyr Thr
20 25 30

Pro Arg Ser Ile Pro Cys Ser Leu Leu Glu Ser Tyr Phe Glu Thr Asn

35 40 45

Ser Glu Cys Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Lys Gly Arg 50 60

Arg Phe Cys Ala Asn Pro Ser Asp Lys Gln Val Gln Val Cys Met Arg 65 70 75 80

Met Leu Lys Leu Asp Thr Arg Ile Lys Thr Arg Lys Asn 85

<210> 1820

<211> 120

<212> PRT

<213> Homo sapiens

<400> 1820

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Arg Val Thr Lys Asp Ala Glu Thr Glu Phe Met 20 25 30

Met Ser Lys Leu Pro Leu Glu Asn Pro Val Leu Leu Asp Arg Phe His 35 40 45

Ala Thr Ser Ala Asp Cys Cys Ile Ser Tyr Thr Pro Arg Ser Ile Pro 50 60

Cys Ser Leu Leu Glu Ser Tyr Phe Glu Thr Asn Ser Glu Cys Ser Lys 65 70 75 80

Pro Gly Val Ile Phe Leu Thr Lys Lys Gly Arg Arg Phe Cys Ala Asn 85 90 95

Pro Ser Asp Lys Gln Val Gln Val Cys Met Arg Met Leu Lys Leu Asp 100 105 110

Thr Arg Ile Lys Thr Arg Lys Asn 115 120

<210> 1821

<211> 120

<212> PRT

<213> Homo sapiens

<400> 1821

Met Lys Val Ser Val Ala Ala Leu Ser Cys Leu Met Leu Val Thr Ala 1 5 10 15

Leu Gly Ser Gln Ala Arg Val Thr Lys Asp Ala Glu Thr Glu Phe Met
20 25 30

Met Ser Lys Leu Pro Leu Glu Asn Pro Val Leu Leu Asp Arg Phe His

Ala Thr Ser Ala Asp Cys Cys Ile Ser Tyr Thr Pro Arg Ser Ile Pro 50 60

Cys Ser Leu Leu Glu Ser Tyr Phe Glu Thr Asn Ser Glu Cys Ser Lys 65 70 75 80

Pro Gly Val Ile Phe Leu Thr Lys Lys Gly Arg Arg Phe Cys Ala Asn 85 90 95

Pro Ser Asp Lys Gln Val Gln Val Cys Met Arg Met Leu Lys Leu Asp 100 105 110

Thr Arg Ile Lys Thr Arg Lys Asn 115 120

<210> 1822

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1822

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys
20 25 30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys 35 40 45

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 60

Glu Asn 65

<210> 1823

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1823

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys

1 5 10 15

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys 20 25 30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys 35 40 45

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 55 60

Glu Asn

65

<210> 1824

<211> 200

<212> PRT

<213> Homo sapiens

<400> 1824

Met Ala Phe Thr Glu His Ser Pro Leu Thr Pro His Arg Arg Asp Leu Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys Ile Arg Ser Asp Leu Thr Ala Leu Thr Glu Ser Tyr Val Lys His Gln Gly Leu Asn Lys Asn Ile Asn Leu Asp Ser Ala Asp Gly Met Pro Val Ala Ser Thr Asp Gln Trp Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln Glu Asn Leu Gln Ala Tyr Arg Thr Phe His Val Leu Leu Ala Arg Leu Leu Glu Asp Gln Gln Val His Phe Thr Pro Thr Glu Gly Asp Phe His Gln Ala Ile His Thr Leu Leu Leu Gln Val Ala Ala Phe Ala Tyr Gln Ile Glu Glu Leu Met Ile Leu Leu Glu Tyr Lys Ile Pro Arg Asn Glu Ala Asp Gly Met Pro Ile 135 Asn Val Gly Asp Gly Gly Leu Phe Glu Lys Lys Leu Trp Gly Leu Lys Val Leu Gln Glu Leu Ser Gln Trp Thr Val Arg Ser Ile His Asp Leu Arg Phe Ile Ser Ser His Gln Thr Gly Ile Pro Ala Arg Gly Ser His Tyr Ile Ala Asn Asn Lys Lys Met 195 <210> 1825 <211> 200 <212> PRT <213> Hómo sapiens <400> 1825 Met Ala Phe Thr Glu His Ser Pro Leu Thr Pro His Arg Arg Asp Leu Cys Ser Arg Ser Ile Trp Leu Ala Arg Lys Ile Arg Ser Asp Leu Thr 25 Ala Leu Thr Glu Ser Tyr Val Lys His Gln Gly Leu Asn Lys Asn Ile Asn Leu Asp Ser Ala Asp Gly Met Pro Val Ala Ser Thr Asp Gln Trp

Ser Glu Leu Thr Glu Ala Glu Arg Leu Gln Glu Asn Leu Gln Ala Tyr

Arg Thr Phe His Val Leu Leu Ala Arg Leu Leu Glu Asp Gln Gln Val

His Phe Thr Pro Thr Glu Gly Asp Phe His Gln Ala Ile His Thr Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Leu Leu Gln Val Ala Ala Phe Ala Tyr Gln Ile Glu Glu Leu Met Ile 115 120 125

Leu Leu Glu Tyr Lys Ile Pro Arg Asn Glu Ala Asp Gly Met Pro Ile 130 135 140

Asn Val Gly Asp Gly Gly Leu Phe Glu Lys Lys Leu Trp Gly Leu Lys 145 150 155 160

Val Leu Gln Glu Leu Ser Gln Trp Thr Val Arg Ser Ile His Asp Leu 165 170 175

Arg Phe Ile Ser Ser His Gln Thr Gly Ile Pro Ala Arg Gly Ser His 180 185 190

Tyr Ile Ala Asn Asn Lys Lys Met 195 200

<210> 1826

<211> 473

<212> PRT

<213> Homo sapiens

<400> 1826

Met Lys Arg Ala Ser Ala Gly Gly Ser Arg Leu Leu Ala Trp Val Leu 1 5 10 15

Trp Leu Gln Ala Trp Gln Val Ala Ala Pro Cys Pro Gly Ala Cys Val 20 25 30

Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln Gly Leu 35 40 45

Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile Phe Leu $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg Ala Cys 65 70 75 80

Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala Arg Ile 85 90 95

Asp Ala Ala Ala Phe Thr Gly Leu Ala Leu Leu Glu Gln Leu Asp Leu
100 105 110

Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe His Gly 115 120 125

Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu Gln Glu 130 135 140

Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr Leu Tyr 145 150 155 160

Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe Arg Asp 165 170 175

Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile Ser Ser 180 185 190

Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg Leu Leu 195 200 205

Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe Arg Asp 210 215 220

Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu Ser Ala 225 230 235 240

Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr Leu Arg 245 250 255

Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg.Ala Arg Pro Leu Trp 260 265 270

Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro Cys Ser 275 280 285

Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala Ala Asn 290 295 300

Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro Ile Trp 305 310 315 320

Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys Cys Cys 325 330 335

Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly Arg Pro 340 345 350

Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg Val Pro Pro Gly Asp Ser 355 360 365

Pro Pro Gly Asn Gly Ser Gly Pro Arg His Ile Asn Asp Ser Pro Phe 370 380

Gly Thr Leu Pro Gly Ser Ala Glu Pro Pro Ala His Cys Ser Ala Ala 385 390 395 400

Arg Gly Leu Arg Ala Thr Arg Phe Pro Thr Ser Gly Pro Arg Arg Arg 405 410 415

Pro Gly Cys Ser Arg Lys Asn Arg Thr Arg Ser His Cys Arg Leu Gly 420 425 430

Gln Ala Gly Ser Gly Gly Gly Thr Gly Asp Ser Glu Gly Ser Gly
435
440
445

Ala Leu Pro Ser Leu Thr Cys Ser Leu Thr Pro Leu Gly Leu Ala Leu 450 455 460

Val Leu Trp Thr Val Leu Gly Pro Cys 465 470

<210> 1827

<211> 473

<212> PRT

<213> Homo sapiens

<400> 182								_			_		_
Met Lys A	Arg Al	a Ser 5	Ala	Gly	Gly	Ser	Arg 10	Leu	Leu	Ala	Trp	Val 15	Leu
Trp Leu (Gln Al 2	-	Gln	Val	Ala	Ala 25	Pro	Cys	Pro	Gly	Ala 30	Cys	Val
Cys Tyr A	Asn Gl 35	u Pro	Lys	Val	Thr 40	Thr	Ser	Cys	Pro	Gln 45	Gln	Gly	Leu
Gln Ala V 50	Val Pr	o Val	Gly	Ile 55	Pro	Ala	Ala	Ser	Gln 60	Arg	Ile	Phe	Leu
His Gly A	Asn Ar	g Ile	Ser 70	His	Val	Pro	Ala	Ala 75	Ser	Phe	Arg	Ala	Суs 80
Arg Asn I	Leu Th	r Ile 85	Leu	Trp	Leu	His	Ser 90	Asn	Val	Leu	Ala	Arg 95	Ile
Asp Ala A	Ala Al 10		Thr	Gly	Leu	Ala 105	Leu	Leu	Glu	Gln	Leu 110	Asp	Leu
Ser Asp A	Asn Al 115	a Gln	Leu	Arg	Ser 120	Val	Asp	Pro	Ala	Thr 125	Phe	His	Gly
Leu Gly A	Arg Le	u His	Thr	Leu 135	His	Leu	Asp	Arg	Cys 140	Gly	Leu	Gln	Glu
Leu Gly 1 145	Pro Gl	y Leu	Phe 150	Arg	Gly	Leu	Ala	Ala 155	Leu	Gln	Tyr	Leu	Туг 160
Leu Gln A	Asp As	n Ala 165	Leu	Gln	Ala	Leu	Pro 170	Asp	Asp	Thr	Phe	Arg 175	Asp
Leu Gly A	Asn Le 18		His	Leu	Phe	Leu 185	His	Gly	Asn	Arg	Ile 190	Ser	Ser
Val Pro (Glu Ar 195	g Ala	Phe	Arg	Gly 200	Leu	His	Ser	Leu	Asp 205	Arg	Leu	Leu
Leu His (210	Gln As	n Arg	Val	Ala 215	His	Val	His	Pro	His 220	Ala	Phe	Arg	Asp
Leu Gly A 225	Arg Le	u Met	Thr 230	Leu	Tyr	Leu	Phe	Ala 235	Asn	Asn	Leu	Ser	Ala 240
Leu Pro 1	Thr Gl	u Ala 245	Leu	Ala	Pro	Leu	Arg 250	Ala	Leu	Gln	Tyr	Leu 255	Arg
Leu Asn A	Asp As 26		Trp	Val	Суѕ	Asp 265	Cys	Arg	Ala	Arg	Pro 270	Leu	Trp
Ala Trp I	Leu Gl 275	n Lys	Phe	Arg	Gly 280	Ser	Ser	Ser	Glu	Val 285	Pro	Cys	Ser
Leu Pro (290	Gln Ar	g Leu	Ala	Gly 295	Arg	Asp	Leu	Lys	Arg 300	Leu	Ala	Ala	Asn
Asp Leu (305	Gln Gl	y Cys	Ala 310	Val	Ala	Thr	Gly	Pro 315	Tyr	His	Pro	Ile	Trp 320

Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys Cys Cys

Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly Arg Pro 340 345 350

Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg Val Pro Pro Gly Asp Ser 355 360 365

Pro Pro Gly Asn Gly Ser Gly Pro Arg His Ile Asn Asp Ser Pro Phe 370 380

Gly Thr Leu Pro Gly Ser Ala Glu Pro Pro Ala His Cys Ser Ala Ala 385 390 395 400

Arg Gly Leu Arg Ala Thr Arg Phe Pro Thr Ser Gly Pro Arg Arg Arg 405 410 415

Pro Gly Cys Ser Arg Lys Asn Arg Thr Arg Ser His Cys Arg Leu Gly 420 425 430

Gln Ala Gly Ser Gly Gly Gly Thr Gly Asp Ser Glu Gly Ser Gly
435
440
445

Ala Leu Pro Ser Leu Thr Cys Ser Leu Thr Pro Leu Gly Leu Ala Leu 450 455 460

Val Leu Trp Thr Val Leu Gly Pro Cys 465 470

<210> 1828

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1828

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu 1 5 10 15

Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu 20 25 30

Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40 45

Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 50 55 60

Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg
65 70 75 80

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 115 120 125

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140 Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 180 185 190

<210> 1829

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1829

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu 1 5 10 15

Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu 20 25 30

Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40 45

Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu 50 55 60

Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 65 70 75 80

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 100 105 110

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly
115 120 125

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140

Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160

Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 180 185 190

<210> 1830

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1830

Met Gly Val His Glu Cys Pro Ala Trp Leu Trp Leu Leu Leu Ser Leu 1 5 10 Leu Ser Leu Pro Leu Gly Leu Pro Val Leu Gly Ala Pro Pro Arg Leu 20 25 30

Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu 35 40 45

Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu
50 60

Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg 65 70 75 80

Met Glu Val Gly Gln Gln Ala Val Glu Val Trp Gln Gly Leu Ala Leu 85 90 95

Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu Leu Val Asn Ser Ser 100 105 110

Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp Lys Ala Val Ser Gly 115 120 125

Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu Gly Ala Gln Lys Glu 130 135 140

Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala Pro Leu Arg Thr Ile 145 150 155 160

Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu 165 170 175

Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg Thr Gly Asp 180 185 190

<210> 1831

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1831

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

1 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Glu Ala 20 25 30

Glu Asp Leu Gln Val Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys
35 40 45

Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55

<210> 1832

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1832

Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr

L 5 10 15

Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Glu Ala 20 25 30

Glu Asp Leu Gln Val Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys 35 40 45

Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn 50 55

<210> 1833

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1833

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys \$20\$ \$25\$ \$30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 55 60

Glu Asn 65

<210> 1834

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1834

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys

1 10 15

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys
35 40 45

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 55

Glu Asn 65

<210> 1835

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1835

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys
1 5 10 15

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys 20 25 30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys $$\tt 35$$

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 60

Glu Asn 65

<210> 1836

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1836

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys

1 10 15

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys \$20\$ \$25\$ \$30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 55 60

Glu Asn 65

<210> 1837

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1837

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys 20 25 30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 55

Glu Asn

65

```
<210> 1838
```

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1838

Gly Pro Tyr His Pro Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ile Pro Arg Gln Arg Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys \$20\$ \$25\$ \$30

Ser Lys Pro Gly Ile Val Phe Ile Thr Lys Arg Gly His Ser Val Cys $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Thr Asn Pro Ser Asp Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys 50 . 55

Glu Asn 65

<210> 1839

<211> 116

<212> PRT

<213> Homo sapiens

<400> 1839

Met Glu Ser Ser Arg Val Arg Leu Leu Pro Leu Leu Gly Ala Ala Leu 1 5 10 15

Leu Leu Met Leu Pro Leu Leu Gly Thr Arg Ala Gln Glu Asp Ala Glu 20 25 30

Leu Gln Pro Arg Ala Leu Asp Ile Tyr Ser Ala Val Asp Asp Ala Ser 35 40 45

His Glu Lys Glu Leu Ile Glu Ala Leu Gln Glu Val Leu Lys Lys Leu 50 55 60

Lys Ser Lys Arg Val Pro Ile Tyr Glu Lys Lys Tyr Gly Gln Val Pro 65 70 75 80

Met Cys Asp Ala Gly Glu Gln Cys Ala Val Arg Lys Gly Ala Arg Ile 85 90 95

Gly Lys Leu Cys Asp Cys Pro Arg Gly Thr Ser Cys Asn Ser Phe Leu 100 105 110

Leu Lys Cys Leu 115

<210> 1840

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1840

Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val Lys His Trp Pro 1 5 10 15

Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg Val Val Glu Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro Val Gln Lys Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln Gly Arg Gly Pro 50 55 60

Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly 65 70 75 80

Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro 85 90 95

Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro 100 105 110

Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr 115 120 125

His Pro Gln 130

<210> 1841

<211> 93

<212> PRT

<213> Homo sapiens

<400> 1841

Met Lys Ile Ser Val Ala Ala Ile Pro Phe Phe Leu Leu Ile Thr Ile
1 5 10 15

Ala Leu Gly Thr Lys Thr Glu Ser Ser Ser Arg Gly Pro Tyr His Pro
20 25 30

Ser Glu Cys Cys Phe Thr Tyr Thr Thr Tyr Lys Ile Pro Arg Gln Arg
35 40 45

Ile Met Asp Tyr Tyr Glu Thr Asn Ser Gln Cys Ser Lys Pro Gly Ile 50 60

Val Phe Ile Thr Lys Arg Gly His Ser Val Cys Thr Asn Pro Ser Asp 65 70 75 80

Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 90

<210> 1842

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1842

Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn
1 5 10 15

```
20
                                  25
Arg Tyr
<210> 1843
<211> 34
<212> PRT
<213> Homo sapiens
<400> 1843
Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn
 1
                                      10
Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln
Arg Tyr
<210> 1844
<211> 0
<212> DNA
<213> Homo sapiens
<400> 1844
000
<210> 1845
<211> 0
<212> DNA
<213> Homo sapiens
<400> 1845
000
<210> 1846
<211> 0
<212> DNA
<213> Homo sapiens
<400> 1846
000
<210> 1847
<211> 0
<212> DNA
<213> Homo sapiens
<400> 1847
000
<210> 1848
<211> 0
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Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln

<212> DNA

<213> Homo sapiens

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<400> 1848
<210> 1849
<211> 0
<212> DNA
<213> Homo sapiens
<400> 1849
000
<210> 1850
<211> 000
<212> DNA
<213> Homo sapiens
<400> 1850
000
<210> 1851
<211> 000
<212> DNA
<213> Homo sapiens
<400> 1851
000
<210> 1852
<211> 000
<212> DNA
<213> Homo sapiens
<400> 1852
000
<210> 1853
<211> 000
<212> DNA
<213> Homo sapiens
<400> 1853
000
<210> 1854
<211> 41
<212> DNA
<213> Homo sapiens
<400> 1854
aagctgcctt aggcttatgc tccaatctct ctacttgcgt t
                                                                         41
<210> 1855
<211> 44
<212> DNA
<213> Homo sapiens
<400> 1855
                                                                         44
gcgcgcggcg cgccttacta accaggtgta ccagaaccag tgtt
<210> 1856
<211> 49
<212> DNA
<213> Homo sapiens
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<400> 1856 ccggggatcc	aagcttccgc	caccatggcg	gcggcgggcc	ggctcccga		49
<210> 1857 <211> 66 <212> DNA <213> Homo	sapiens					
<400> 1857 agtcccatcg tggcac	atgagcaacc	tcactcttgt	gtgcatcatt	acttggtgta	agatacagtt	60 66
<210> 1858 <211> 36 <212> DNA <213> Homo	sapiens					
<400> 1858						2.6
	acaaaagaag	ctacaatcac	cttcaa			36
<210> 1859 <211> 55						
<212> DNA <213> Homo	aniona					
(213) HOINO	saprens					
<400> 1859	atgaggaacc	tcactcttqt	gtgcatctga	gtgtaccacc	attgg	55
	acgagoaacc		gogodooogd	gogoaccacc	ucc99	33
<210> 1860 <211> 35						
<212> DNA						
<213> Homo	sapiens					
<400> 1860						
aagctgcctt	aggettaage	tacaatcacc	ttcaa			35
<210> 1861						
<211> 41 <212> DNA						
<213> Homo	sapiens					
<400> 1861						
gcccggggta	ccggcgcgcc	ctatgagtgt	accaccattg	g		41
<210> 1862						
<211> 36 <212> DNA						
<213> Homo	sapiens					
<400> 1862						
cgcggatccg	ccaccatggc	cctggtgctg	atcctc			36
<210> 1863 <211> 55 <212> DNA						
<213> Homo	sapiens					
<400> 1863 agtcccatcg	atgagcaacc	tcactcttgt	gtgcatcgcg	gactaggttc	ccccg	55
<210> 1864						

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<212> DNA
<213> Homo sapiens
<400> 1864
gatggaagat ctaagcttcc gccaccatga aggtctccgt ggctgccctc tcctgcctca
                                                                       60
                                                                       113
tgcttgttac tgcccttgga tcccaggccg cgggaaggca tgtgcggagc tac
<210> 1865
<211> 58
<212> DNA
<213> Homo sapiens
<400> 1865
agteceateg atgageaace teactettgt gtgcatetga gtgtaceace attggaag
                                                                        58
<210> 1866
<211> 41
<212> DNA
<213> Homo sapiens
<400> 1866
aagctgcctt aggcttagcg ggaaggcatg tgcggagcta c
                                                                        41
<210> 1867
<211> 47
<212> DNA
<213> Homo sapiens
<400> 1867
gacgttggcg cgccttacta tgagtgtacc accattggaa gaaagtg
                                                                        47
<210> 1868
<211> 41
<212> DNA
<213> Homo sapiens
<400> 1868
aagctgcctt aggcttagcg ggaaggcatg tgcggagcta c
                                                                        41
<210> 1869
<211> 47
<212> DNA
<213> Homo sapiens
<400> 1869
gacgttggcg cgccttacta tgagtgtacc accattggaa gaaagtg
                                                                        47
<210> 1870
<211> 41
<212> DNA
<213> Homo sapiens
<400> 1870
aagctgcctt aggcttagcg ggaaggcatg tgcggagcta c
                                                                        41
<210> 1871
<211> 47
<212> DNA
<213> Homo sapiens
<400> 1871
                                                                        47
gacgttggcg cgccttacta tgagtgtacc accattggaa gaaagtg
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<210> 1872
<211> 41
<212> DNA
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Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu

20 25 30

Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln 35 40 45

- Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln 50 60
- Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ala Ala Trp Asp Glu 65 70 75 80
- Asp Leu Leu Asp Lys Phe Cys Thr Glu Leu Tyr Gln Gln Leu Asn Asp 85 90 95
- Leu Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu 100 105 110
- Met Asn Xaa Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Ile 115 120 125
- Thr Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val 130 135 140
- Val Arg Ala Glu Ile Met Arg Ser Leu Ser Leu Ser Thr Asn Leu Gln 145 150 155 160

Glu Arg Leu Arg Arg Lys Glu 165

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<211> 166

<212> PRT

<213> Homo sapiens

<400> 2131

Met Cys Asp Leu Pro Glu Thr His Ser Leu Asp Asn Arg Arg Thr Leu 1 5 10 15

Met Leu Leu Ala Gln Met Ser Arg Ile Ser Pro Ser Ser Cys Leu Met 20 25 30

- Asp Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln 35 40
- Phe Gln Lys Ala Pro Ala Ile Ser Val Leu His Glu Leu Ile Gln Gln 50 60
- Ile Phe Asn Leu Phe Thr Thr Lys Asp Ser Ser Ser Thr Gly Trp Asn 65 70 75 80
- Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn 85 90 95
- His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr 100 105 110
- Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg 115 120 125
- Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr 130 135 140

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Thr Gly Tyr Leu Arg Asn
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Leu Gly Ser Gln Ala
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Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ala Gly Val
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Ser Gly
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Ser Gly
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Ala
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Ser Val Ile Asn Tyr Lys Arg
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<211> 394
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tggtggttgg caaatgacta attaagttag tcaaggcgcc atcctcatga aaactgtgta 180
acataataac cgaagtgtcg aaaaggtggc accttgtcca attgaacacg ctcgatgaaa 240
aaaataagat atatataagg ttaagtaaag cgtctgttag aaaggaagtt tttccttttt 300
cttgctctct tgtcttttca tctactattt ccttcgtgta atacagggtc gtcagataca 360
tagatacaat tctattaccc ccatccatac aatg
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Leu Asp Lys Arg
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Leu Glu Lys Arg
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Ala Pro Pro Arg Leu Ile
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Asp Ala His Lys Ser
<210> 2144
<211> 5
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Thr Pro Leu Gly Pro
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<211> 5
<212> PRT
<213> Homo sapiens
<400> 2145
Ser Val Ser Glu Ile
<210> 2146
<211> 5
<212> PRT
<213> Homo sapiens
<400> 2146
Cys Asp Leu Pro Gln
<210> 2147
<211> 12
<212> PRT
<213> Homo sapiens
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Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr
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Gly Gly Gly Pro Gly Lys Arg
1 5
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<211> 5
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<213> Homo sapiens
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Gly Gly Gly Ser
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Tyr Thr Ser Leu Ile
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caacttatag atattgttga tcagctgaaa aattatgtga atgacttggt ccctgaattt
                                                                      180
ctgccagctc cagaagatgt agagacaaac tgtgagtggt cagctttttc ctgttttcag
                                                                      240
aaggcccaac taaagtcagc aaatacagga aacaatgaaa ggataatcaa tgtatcaatt
                                                                      300
aaaaagctga agaggaaacc accttccaca aatgcaggga gaagacagaa acacagacta
                                                                      360
                                                                      420
acatgccctt catgtgattc ttatgagaaa aaaccaccca aagaattcct agaaagattc
aaatcacttc tccaaaagat gattcatcag catctgtcct ctagaacaca cggaagtgaa
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                                                                      120
                                                                      180
ctcacagage agaagactet gtgcacegag ttgacegtaa cagacatett tgctgcetee
aagaacacaa ctgagaagga aaccttctgc agggctgcga ctgtgctccg gcagttctac
                                                                      240
agccaccatg agaaggacac tegetgeetg ggtgegaetg cacageagtt ccacaggeac
                                                                      300
aagcagctga tccgattcct gaaacggctc gacaggaacc tctggggcct ggcgggcttg
                                                                      360
aatteetgte etgtgaagga ageeaaceag/agtaegttgg aaaaettett ggaaaggeta
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                                                                      462
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gaattcattg cttggttggt taagggtaga catggagagg gaacatttac atcagacgtc 120
tcatcatatt tagagggaca ggcagcaaaa gagtttatag catggttagt aaaaggaaga 180
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<213> Homo sapiens
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tgccatcaag agccatcagt atgtcttcaa gctgcatgcc cagaaagctg gattggtttt
                                                                       120
caaagaaagt gtttctattt ttctgatgac accaagaact ggacatcaag tcagaggttt
                                                                       180
                                                                       240
tgtgactcac aagatgctga tcttgctcag gttgaaagct tccaggaact gaatttcctg
                                                                       300
ttgagatata aaggcccatc tgatcactgg attgggctga gcagagaaca aggccaacca
tggaaatgga taaatggtac tgaatggaca agacagtttc ctatcctggg agcaggagag
                                                                       360
tgtgcctatt tgaatgacaa aggtgccagt agtgccaggc actacacaga gaggaagtgg
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                                                                       450
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Tyr Ser Arg Ser Leu Asp Lys Arg Gln Gly Gln Asp Arg His Met Ile

Arg	Met	Arg 35	Gln	Leu	Ile	Asp	Ile 40	Va1	Asp	Gln	Leu	Lys 45	Asn	Tyr	Val
Asn	Asp 50	Leu	Val	Pro	Glu	Phe 55	Leu	Pro	Ala	Pro	Glu 60	Asp	Val	Glu	Thr
Asn 65	Cys	Glu	Trp	Ser	Ala 70	Phe	Ser	Cys	Phe	Gln 75	Lys	Ala	Gln	Leu	Lys 80
Ser	Ala	Asn	Thr	Gly 85	Asn	Asn	Glu	Arg	Ile 90	Ile	Asn	Val	Ser	Ile 95	Lys
Lys	Leu	Lys	Arg 100	Lys	Pro	Pro	Ser	Thr 105	Asn	Ala	Gly	Arg	Arg 110	Gln	Lys
His	Arg	Leu 115	Thr	Cys	Pro	Ser	Cys 120	Asp	Ser	Tyr	Glu	Lys 125	Lys	Pro	Pro
Lys	Glu 130	Phe	Leu	Glu	Arg	Phe 135	Lys	Ser	Leu ·	Leu	Gln 140	Lys	Met	Ile	His
Gln 145	His	Leu	Ser	Ser	Arg 150	Thr	His	Gly	Ser	Glu 155	Asp	Ser	Asp	Ala	His 160
Lys	Ser	Glu	Val	Ala 165	His	Arg	Phe	Lys	Asp 170	Leu	Gly	Glu	Glu	Asn 175	Phe
Lys	Ala	Leu	Val 180	Leu	Ile	Ala	Phe	Ala 185	Gln	Tyr	Leu	Gln	Gln 190	Cys	Pro
Phe	Glu	Asp 195	His	Val	Lys	Leu	Val 200	Asn	Glu	Val	Thr	Glu 205	Phe	Ala	Lys
Thr	Cys 210	Val	Ala	Asp	Glu	Ser 215	Ala	Glu	Asn	Суѕ	Asp 220	Lys	Ser	Leu	His
Thr 225	Leu	Phe	Gly	Asp	Lys 230	Leu	Cys	Thr	Val	Ala 235	Thr	Leu	Arg	Glu	Thr 240
Tyr	Gly	Glu	Met	Ala 245	Asp	Cys	Cys	Ala	Lys 250	Gln	Glu	Pro	Glu	Arg 255	Asn
Glu	Cys	Phe	Leu 260	Gln	His	Lys	Asp	Asp 265	Asn	Pro	Asn	Leu	Pro 270	Arg	Leu
Val	Arg	Pro 275	Glu	Val	Asp	Val	Met 280	Cys	Thr	Ala	Phe	His 285	Asp	Asn	Glu
Glu	Thr 290	Phe	Leu	Lys	Lys	Tyr 295	Leu	Tyr	Glu	Ile	Ala 300	Arg	Arg	His	Pro
Tyr 305	Phe	Tyr	Ala	Pro	Glu 310	Leu	Leu	Phe	Phe	Ala 315	Lys	Arg	Ţyr	Lys	Ala 320
Ala	Phe	Thr	Glu	Cys 325	Cys	Gln	Ala	Ala	Asp 330	Lys	Ala	Ala	Cys	Leu 335	Leu
Pro	Lys	Leu	Asp 340	Glu	Leu	Arg	Asp	Glu 345	Gly	Lys	Ala	Ser	Ser 350	Ala	Lys

Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe

Lys	Ala 370	Trp	Ala	Val	Ala	Arg 375	Leu	Ser	Gln	Arg	Phe 380	Pro	Lys	Ala	Glu
Phe 385	Ala	Glu	Val	Ser	Lys 390	Leu	Val	Thr	Asp	Leu 395	Thr	Lys	Val	His	Thr 400
Glu	Cys	Cys	His	Gly 405	Asp	Leu	Leu	Glu	Cys 410	Ala	Asp	Asp	Arg	Ala 415	Asp
Leu	Ala	Lys	Tyr 420	Ile	Cys	Glu	Asn	Gln 425	Asp	Ser	Ile	Ser	Ser 430	Lys	Leu
Lys	Glu	Cys 435	Cys	Glu	Lys	Pro	Leu 440	Leu	Glu	Lys	Ser	His 445	Cys	Ile	Ala
Glu	Val 450	Glu	Asn	Asp	Glu	Met 455	Pro	Ala	Asp	Leu	Pro 460	Ser	Leu	Ala	Ala
Asp 465	Phe	Val	Glu	Ser	Lys 470	Asp	Val	Cys	Lys	Asn 475	Tyr	Ala	Glu	Ala	Lys 480
Asp	Val	Phe	Leu	Gly 485	Met	Phe	Leu	Tyr	Glu 490	Tyr	Ala	Arg	Arg	His 495	Pro
Asp	Tyr	Ser	Val 500	Val	Leu	Leu	Leu	Arg 505	Leu	Ala	Lys	Thr	Туг 510	Glu	Thr
Thr	Leu	Glu 515	Lys	Cys	Cys	Ala	Ala 520	Ala	Asp	Pro	His	Glu 525	Cys	Tyr	Ala
Lys	Val 530	Phe	Asp	Glu	Phe	Lys 535	Pro	Leu	Val	Glu	Glu 540	Pro	Gln	Asn	Leu
Ile 545	Lys	Gln	Asn	Cys	Glu 550	Leu	Phe	Glu	Gln	Leu 555	Gly	Glu	Tyr	Lys	Phe 560
Gln	Asn	Ala	Leu	Leu 565	Val	Arg	Tyr	Thr	Lys 570	Lys	Val	Pro	Gln	Val 575	Ser
Thr	Pro	Thr	Leu 580	Val	Glu	Val	Ser	Arg 585	Asn	Leu	Gly	Lys	Val 590	Gly	Ser
Lys	Cys	Cys 595	Lys	His	Pro	Glu	Ala 600	Lys	Arg	Met	Pro	Cys 605	Ala	Glu	Asp
Tyr	Leu 610	Ser	Val	Val	Leu	Asn 615	Gln	Leu	Cys	Val	Leu 620	His	Gļu	Lys	Thr
Pro 625	Val	Ser	Asp	Arg	Val 630	Thr	Lys	Cys	Cys	Thr 635	Glu	Ser	Leu	Val	Asn 640
Arg	Arg	Pro		Phe		Ala	Leu		Val		Glu	Thr	Tyr	Val	Pro

Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr $660 \hspace{1.5cm} 665 \hspace{1.5cm} 670 \hspace{1.5cm}$

Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu

Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val

690 695 700

Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp 705 710 715 720

Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser 725 730 735

Gln Ala Ala Leu Gly Leu 740

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<211> 738

<212> PRT

<213> Homo sapiens

<400> 2168

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala 1 5 10 15

Tyr Ser Arg Ser Leu Asp Lys Arg His Lys Cys Asp Ile Thr Leu Gln 20 25 30

Glu Ile Ile Lys Thr Leu Asn Ser Leu Thr Glu Gln Lys Thr Leu Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Glu Leu Thr Val Thr Asp Ile Phe Ala Ala Ser Lys Asn Thr Thr 50 55 60

Glu Lys Glu Thr Phe Cys Arg Ala Ala Thr Val Leu Arg Gln Phe Tyr 65 70 75 80

Ser His His Glu Lys Asp Thr Arg Cys Leu Gly Ala Thr Ala Gln Gln 90 95

Phe His Arg His Lys Gln Leu Ile Arg Phe Leu Lys Arg Leu Asp Arg
100 105 110

Asn Leu Trp Gly Leu Ala Gly Leu Asn Ser Cys Pro Val Lys Glu Ala 115 120 125

Asn Gln Ser Thr Leu Glu Asn Phe Leu Glu Arg Leu Lys Thr Ile Met 130 135 140

Arg Glu Lys Tyr Ser Lys Cys Ser Ser Asp Ala His Lys Ser Glu Val 145 150 155 160

Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val 165 170 175

Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His 180 185 190

Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala 195 200 205

Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly 210 215 220

Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met 225 230 235 240

Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu 245 250 Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu 265 Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala 295 Pro Glu Leu Pee Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys 345 Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val 375 Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His 395 Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys 425 Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn 440 Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu 455 Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys 500 505 Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn 535 Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu 550 555 Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu 570

Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys 580 585 590

His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val 595 600 605

Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp 610 615 620

Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys 625 630 635 640

Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn 645 650 655

Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys
660 665 670

Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His 675 680 685

Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe $690 \hspace{1.5cm} 695 \hspace{1.5cm} 700 \hspace{1.5cm}$

Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys 705 710 715 720

Phe Ala Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu 725 730 735

Gly Leu

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<212> PRT

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<400> 2169

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<210> 2170

<211> 673

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<213> Homo sapiens

<400> 2170

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Leu Glu His Thr His Arg Arg Gly Ser Leu Asp Lys Arg His Gly Glu 20 25 30

Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala 35 40 45

Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His Gly Glu Gly Thr 50 60

Phe 65	Thr	Ser	Asp	Val	Ser 70	Ser	Tyr	Leu	Glu	Gly 75	Gln	Ala	Ala	Lys	Glu 80
Phe	Ile	Ala	Trp	Leu 85	Val	Lys	Gly	Arg	Glu 90	Ala	His	Lys	Ser	G1u 95	Ile
Ala	His	Arg	Tyr 100	Asn	Asp	Leu	Gly	Glu 105	Gln	His	Phe	Lys	Gly 110	Leu	Val
Leu	Ile	Ala 115	Phe	Ser	Gln	Tyr	Leu 120	Gln	Lys	Cys	Ser	Туг 125	Asp	Glu	His
Ala	Lys 130	Leu	Val	Gln	Glu	Val 135	Thr	Asp	Phe	Ala	Lys 140	Thr	Cys	Val	Ala
Asp 145	Glu	Ser	Ala	Ala	Asn 150	Cys	Asp	Lys	Ser	Leu 155	His	Thr	Leu	Phe	Gly 160
Asp	Lys	Leu	Cys	Ala 165	Ile	Pro	Asn	Leu	Arg 170	Glu	Asn	Tyr	Gly	Glu 175	Leu
Ala	Asp	Cys	Cys 180	Thr	Lys	Gln	Glu	Pro 185	Glu	Arg	Asn	Glu	Cys 190	Phe	Leu
Gln	His	Lys 195	Asp	Asp	Asn	Pro	Ser 200	Leu	Pro	Pro	Phe	Glu 205	Arg	Pro	Glu
Ala	Glu 210	Ala	Met	Cys	Thr	Ser 215	Phe	Lys	Glu	Asn	Pro 220	Thr	Thr	Phe	Met
Gly 225	His	Tyr	Leu	His	Glu 230	Val	Ala	Arg	Arg	His 235	Pro	Tyr	Phe	Tyr	Ala 240
Pro	Glu	Leu	Leu	Tyr 245	Tyr	Ala	Glu	Gln	Tyr 250	Asn	Glu	Ile	Leu	Thr 255	Gln
Cys	Суѕ	Ala	Glu 260	Ala	Asp	Lys	Glu	Ser 265	Cys	Leu	Thr	Pro	Lys 270	Leu	Asp
Gly	Val	Lys 275	Glu	Lys	Ala	Leu	Val 280	Ser	Ser	Val	Arg	Gln 285	Arg	Met	Lys
Cys	Ser 290	Ser	Met	Gln	Lys	Phe 295	Gly	Glu	Arg	Ala	Phe 300	Lys	Ala	Trp	Ala
Val 305	Ala	Arg	Leu	Ser	Gln 310	Thr	Phe	Pro	Asn	Ala 315	Asp	Phe	Ala	Glu	11e 320
Thr	Lys	Leu	Ala	Thr 325	Asp	Leu	Thr	Lys	Val 330	Asn	Lys	Glu	Cys	Cys 335	His
Gly	Asp	Leu	Leu 340	Glu	Cys	Ala	Asp	Asp 345	Arg	Ala	Glu	Leu	Ala 350	Lys	Tyr
Met	Cys	Glu 355	Asn	Gln	Ala	Thr	Ile 360	Ser	Ser	Lys	Leu	Gln 365	Thr	Cys	Cys
Asp	Lys 370	Pro	Leu	Leu	Lys	Lys 375	Ala	His	Cys	Leu	Ser 380	Glu	Val	Glu	His
Asp 385	Thr	Met	Pro	Ala	Asp 390	Leu	Pro	Ala	Ile	Ala 395	Ala	Asp	Phe	Val	Glu 400

 Gly
 Thr
 Phe Leu 420
 Tyr
 Glu
 Tyr
 Ser Arg 425
 Arg His Pro Asp Tyr A30
 Tyr A30
 Ser Val 430

 Ser
 Leu Leu Leu Leu Arg Leu Arg Leu Ala Lys Lys Tyr Glu Ala Thr Leu Glu Lys 435
 Leu Ala Lys Lys Tyr Glu Ala Thr Leu Glu Lys A450
 Leu Ala Asn Pro A50
 Tyr Gly Thr Val Leu Ala Ala A650
 Pro A10
 Cys Tyr Gly Thr Val Leu Ala A650
 Thr Asn A650

 Glu Phe Gln Pro Leu Val Glu Glu Glu Pro Lys Asp Leu Yal Gly Phe Gln Asp A850
 Leu Tyr Glu Lys Leu Gly Glu Tyr Gln Val Gly Phe Gln Asp A10
 A10
 A95

 Leu Val Arg Tyr Thr Gln Lys Ala Pro Sob
 Gln Val Ser Thr Pro Thr Leu Son Thr Leu Son Sob
 Sob
 Sob
 Cys Cys Thr Sob

 Val Glu Ala Ala Arg Asp Gln Arg Leu Pro Sob
 Yal Glu Asp Tyr Leu Ser Ala Son Sob
 Sob
 Yal Glu Asp Tyr Leu Ser Ala Sob

 Leu Pro Glu Asp Gln Arg Leu Leu His Glu Lys Thr Pro Val Ser Glu Sob
 Sob
 Sob
 Sob

 His Val Thr Lys Cys Cys Cys Ser Gly Ser Leu Val Glu Arg Arg Pro Cys Sob
 Sob
 Sob

Asp Gln Glu Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu

410

405

580 585 590

Ala Glu Thr Phe Thr Phe His Ser Asp Ile Cys Thr Leu Pro Glu Lys

Phe Ser Ala Leu Thr Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Lys

Glu Lys Gln Ile Lys Lys Gln Thr Ala Leu Ala Glu Leu Val Lys His 610 615

Lys Pro Lys Ala Thr Ala Glu Gln Leu Lys Thr Val Met Asp Asp Phe 625 630 635 640

Ala Gln Phe Leu Asp Thr Cys Cys Lys Ala Ala Asp Lys Asp Thr Cys \cdot 645 650 655

Phe Ser Thr Glu Gly Pro Asn Leu Val Thr Ser Cys Lys Asp Ala Leu 660 665 670

Ala

<210> 2171

<211> 739

<212> PRT

<213> Homo sapiens

<400> 2171

Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala Tyr Ser Arg Ser Leu Asp Lys Arg Asn Cys His Gln Glu Pro Ser Val 25 Cys Leu Gln Ala Ala Cys Pro Glu Ser Trp Ile Gly Phe Gln Arg Lys Cys Phe Tyr Phe Ser Asp Asp Thr Lys Asn Trp Thr Ser Ser Gln Arg Phe Cys Asp Ser Gln Asp Ala Asp Leu Ala Gln Val Glu Ser Phe Gln Glu Leu Asn Phe Leu Leu Arg Tyr Lys Gly Pro Ser Asp His Trp Ile Gly Leu Ser Arg Glu Gln Gly Gln Pro Trp Lys Trp Ile Asn Gly Thr Glu Trp Thr Arg Gln Phe Pro Ile Leu Gly Ala Gly Glu Cys Ala Tyr Leu Asn Asp Lys Gly Ala Ser Ser Ala Arg His Tyr Thr Glu Arg Lys 135 Trp Ile Cys Ser Lys Ser Asp Ile His Val Asp Ala His Lys Ser Glu 150 Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu 170 Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val 200 Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe 250 Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe 280 Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr 295 Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu 325 330

Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu 375 Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys 410 Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys 425 Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val 455 Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe 470 Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln 535 Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys 585 Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser · 610 615 Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro 635 Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe 650 Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu 665

Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys

His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp

Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr 705 710 715

Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala 730

Leu Gly Leu

- <210> 2172
- <211> 0
- <212> PRT <213> Homo sapiens
- <400> 2172
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- <210> 2173
- <211> 0
- <212> PRT <213> Homo sapiens
- <400> 2173
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- <210> 2176
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- <400> 2176
- 000
- <210> 2177
- <211> 162
- <212> PRT

<213> Homo sapiens

<400> 2177

Met Arg Ser Ser Pro Gly Asn Met Glu Arg Ile Val Ile Cys Leu Met 1 5 10 15

Val Ile Phe Leu Gly Thr Leu Val His Lys Ser Ser Ser Gln Gly Gln
20 25 30

Asp Arg His Met Ile Arg Met Arg Gln Leu Ile Asp Ile Val Asp Gln 35 40 45

Leu Lys Asn Tyr Val Asn Asp Leu Val Pro Glu Phe Leu Pro Ala Pro 50 60

Glu Asp Val Glu Thr Asn Cys Glu Trp Ser Ala Phe Ser Cys Phe Gln 65 70 75 80

Lys Ala Gln Leu Lys Ser Ala Asn Thr Gly Asn Asn Glu Arg Ile Ile 85 90 95

Asn Val Ser Ile Lys Lys Leu Lys Arg Lys Pro Pro Ser Thr Asn Ala 100 105 110

Gly Arg Arg Gln Lys His Arg Leu Thr Cys Pro Ser Cys Asp Ser Tyr 115 120 125

Glu Lys Lys Pro Pro Lys Glu Phe Leu Glu Arg Phe Lys Ser Leu Leu 130 135 140

Gln Lys Met Ile His Gln His Leu Ser Ser Arg Thr His Gly Ser Glu 145 150 155 160

Asp Ser

<210> 2178

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2178

Met Gly Leu Thr Ser Gln Leu Leu Pro Pro Leu Phe Phe Leu Leu Ala
1 5 10 15

Cys Ala Gly Asn Phe Val His Gly His Lys Cys Asp Ile Thr Leu Gln 20 25 30

Glu Ile Ile Lys Thr Leu Asn Ser Leu Thr Glu Gln Lys Thr Leu Cys
35 40 45

Thr Glu Leu Thr Val Thr Asp Ile Phe Ala Ala Ser Lys Asn Thr Thr 50 55 60

Glu Lys Glu Thr Phe Cys Arg Ala Ala Thr Val Leu Arg Gln Phe Tyr 65 70 75 80

Ser His His Glu Lys Asp Thr Arg Cys Leu Gly Ala Thr Ala Gln Gln 85 90 95

Phe His Arg His Lys Gln Leu Ile Arg Phe Leu Lys Arg Leu Asp Arg

100 105 110

Asn Leu Trp Gly Leu Ala Gly Leu Asn Ser Cys Pro Val Lys Glu Ala 115 120 125

Asn Gln Ser Thr Leu Glu Asn Phe Leu Glu Arg Leu Lys Thr Ile Met 130 135 140

Arg Glu Lys Tyr Ser Lys Cys Ser Ser 145 150

<210> 2179

<211> 0

<212> PRT

<213> Homo sapiens

<400> 2179

000

<210> 2180

<211> 60

<212> PRT

<213> Homo sapiens

<400> 2180

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg His Gly 20 25 30

Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala 35 40 45

Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
50 55 60

<210> 2181

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2181

Met Phe Leu Thr Ile Ile Val Cys Gly Met Val Ala Ala Leu Ser Ala 1 5 10 15

Ile Arg Ala Asn Cys His Gln Glu Pro Ser Val Cys Leu Gln Ala Ala 20 25 30

Cys Pro Glu Ser Trp Ile Gly Phe Gln Arg Lys Cys Phe Tyr Phe Ser 35 40 45

Asp Asp Thr Lys Asn Trp Thr Ser Ser Gln Arg Phe Cys Asp Ser Gln 50 60

Asp Ala Asp Leu Ala Gln Val Glu Ser Phe Gln Glu Leu Asn Phe Leu 65 70 75 80

Leu Arg Tyr Lys Gly Pro Ser Asp His Trp Ile Gly Leu Ser Arg Glu

```
85 90 95
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Gln Gly Gln Pro Trp Lys Trp Ile Asn Gly Thr Glu Trp Thr Arg Gln 100 105 110

Phe Pro Ile Leu Gly Ala Gly Glu Cys Ala Tyr Leu Asn Asp Lys Gly 115 120 125

Ala Ser Ser Ala Arg His Tyr Thr Glu Arg Lys Trp Ile Cys Ser Lys 130 135 140

Ser Asp Ile His Val

<210> 2182

<211> 0

<212> DNA

<213> Homo sapiens

<400> 2182

000

<210> 2183

<211> 0

<212> DNA

<213> Homo sapiens

<400> 2183

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<210> 2184

<211> 0

<212> DNA

<213> Homo sapiens

<400> 2184

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<210> 2185

<211> 0

<212> DNA

<213> Homo sapiens

<400> 2185

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<210> 2186

<211> 0

<212> DNA

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<400> 2186

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<210> 2187

<211> 0

<212> DNA

<213> Homo sapiens

<400> 2187

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<210> 2188
<211> 39
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<213> Homo sapiens
<400> 2188
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aggagegteg acaaaagaca aggteaagat egecacatg
<210> 2189
<211> 59
<212> DNA
<213> Homo sapiens
<400> 2189
cgcgcatcga tgagcaacct cactcttgtg tgcatcggaa tcttcacttc cgtgtgttc
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<210> 2190
<211> 42
<212> DNA
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<400> 2190
aggagcgtcg acaaaagaca caagtgcgat atcaccttac ag
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<210> 2191
<211> 62
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<213> Homo sapiens
<400> 2191
cgcgcatcga tgagcaacct cactcttgtg tgcatcgctc gaacactttg aatatttctc
                                                                        60
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<400> 2192
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<400> 2193
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aaacttaaga gtccaattag cttcatcgc
                                                                        29
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<213> Homo sapiens
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ccggaattcc ttagcagctt gacc
                                                                       24
<210> 2196
<211> 40
<212> DNA
<213> Homo sapiens
<400> 2196
aggagcgtcg acaaaagaaa ctgccatcaa gagccatcag
                                                                       40
<210> 2197
<211> 65
<212> DNA
<213> Homo sapiens
<400> 2197
cgcgcatcga tgagcaacct cactcttgtg tgcatcgaca tgtatatctg atttggaaca
                                                                       60
aatcc
                                                                       65
<210> 2198
<211> 24
<212> PRT
<213> Homo sapiens
<400> 2198
Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys
Arg Arg Pro Val Lys Val Tyr Pro
             20
<210> 2199
<211> 22
<212> PRT
<213> Homo sapiens
<400> 2199
Gly Ile Gly Lys Phe Leu Lys Lys Ala Lys Lys Phe Gly Lys Ala Phe
Val Lys Ile Leu Lys Lys
             20
<210> 2200
<211> 37
<212> PRT
<213> Homo sapiens
<400> 2200
Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
Gly Ser Asn Thr Tyr
         35
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<210> 2201

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<211> 34
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<213> Homo sapiens
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Ser Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn
                                     10 .
Ser Met Glu Arg Val Glu Trp Leu Arg Lys Leu Gln Asp Val His
                                25
Asn Phe
<210> 2202
<211> 12
<212> PRT
<213> Homo sapiens
<400> 2202
Gly Gly Cys Tyr Phe Gln Asn Cys Pro Lys Gly
<210> 2203
<211> 32
<212> PRT
<213> Homo sapiens
<400> 2203
Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
                                 25
<210> 2204
<211> 58
<212> PRT
<213> Homo sapiens
<400> 2204
Arg Pro Asp Phe Cys Leu Glu Pro Pro Tyr Thr Gly Pro Cys Lys Ala
Arg Ile Ile Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr
Phe Val Tyr Gly Gly Cys Arg Ala Lys Arg Asn Asn Phe Lys Ser Ala
                             40
Glu Asp Cys Met Arg Thr Cys Gly Gly Ala ·
<210> 2205
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<211> 9 <212> PRT <213> Homo sapiens <400> 2205

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Cys Tyr Ile Asn Asn Cys Pro Leu Gly
<210> 2206
<211> 32
<212> PRT
<213> Homo sapiens
<400> 2206
Cys Gly Asn Leu Ser Thr Cys Met Leu Gly Thr Tyr Thr Gln Asp Phe
Asn Lys Phe His Thr Phe Pro Gln Thr Ala Ile Gly Val Gly Ala Pro
<210> 2207
<211> 28
<212> PRT
<213> Homo sapiens
<400> 2207
Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly
Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
<210> 2208
<211> 65
<212> PRT
<213> Homo sapiens
<400> 2208
Val Val Tyr Thr Asp Cys Thr Glu Ser Gly Gln Asn Leu Cys Leu Cys
Glu Gly Ser Asn Val Cys Gly Gln Gly Asn Lys Cys Ile Leu Gly Ser
Asp Gly Glu Lys Asn Gln Cys Val Thr Gly Glu Gly Thr Pro Lys Pro
Gln Ser His Asn Asp Gly Asp Phe Glu Glu Ile Pro Glu Glu Tyr Leu
Gln
65
<210> 2209
<211> 72
<212> PRT
<213> Homo sapiens
<400> 2209
Ser Ala Lys Glu Leu Arg Cys Gln Cys Ile Lys Thr Tyr Ser Lys Pro
Phe His Pro Lys Phe Ile Lys Glu Leu Arg Val Ile Glu Ser Gly Pro
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25

His Cys Ala Asn Thr Glu Ile Ile Val Lys Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro Lys Glu Asn Trp Val Gln Arg Val Val Glu Lys 55 Phe Leu Lys Arg Ala Glu Asn Ser 70 <210> 2210 <211> 9 <212> PRT <213> Homo sapiens <400> 2210 Cys Phe Phe Gln Asn Cys Pro Lys Gly 5 <210> 2211 <211> 29 <212> PRT <213> Homo sapiens <400> 2211 His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr <210> 2212 <211> 69 <212> PRT <213> Homo sapiens <400> 2212 Ser Leu Ala Ala Asp Thr Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe Ile Ala Ala Tyr Phe Glu Thr Ser Ser 25 Gln Cys Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln Val Cys Ala Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser Asp Leu Glu Leu Ser Ala <210> 2213 <211> 5 <212> PRT <213> Homo sapiens

<400> 2213

Asp Ser Asp Pro Arg

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<210> 2214
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<211> 85

<212> PRT

<213> Homo sapiens

<400> 2214

Phe Val Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu 1 5 10 15

Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg Arg Glu 20 25 30

Ala Glu Asp Leu Gln Val Gly Gln Val Glu Leu Gly Gly Gly Pro Gly
35 40 45

Ala Gly Ser Leu Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys Arg 50 60

Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu 65 70 75 80

Glu Asn Tyr Cys Asn

<210> 2215

<211> 109

<212> PRT

<213> Homo sapiens

<400> 2215

Ser Leu Gly Ser Leu Thr Ile Ala Glu Pro Ala Met Ile Ala Glu Cys 1 5 10 15

Lys Thr Arg Thr Glu Val Phe Glu Ile Ser Arg Arg Leu Ile Asp Arg 20 25 30

Thr Asn Ala Asn Phe Leu Val Trp Pro Pro Cys Val Glu Val Gln Arg
35 40 45

Cys Ser Gly Cys Cys Asn Asn Arg Asn Val Gln Cys Arg Pro Thr Gln 50 55 60

Val Gln Leu Arg Pro Val Gln Val Arg Lys Ile Glu Ile Val Arg Lys 65 70 75 80

Lys Pro Ile Phe Lys Lys Ala Thr Val Thr Leu Glu Asp His Leu Ala 85 90 95

Cys Lys Cys Glu Thr Val Ala Ala Ala Arg Pro Val Thr 100 105

<210> 2216

<211> 28

<212> PRT

<213> Homo sapiens

<400> 2216

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys

1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

20 25

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<210> 2217
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<211> 40

<212> PRT

<213> Homo sapiens

<400> 2217

Arg Ile Tyr Lys Gly Val Ile Gln Ala Ile Gln Lys Ser Asp Glu Gly
1 5 10 15

His Pro Phe Arg Ala Tyr Leu Glu Ser Glu Val Ala Ile Ser Glu Glu $20 \\ 25 \\ 30$

Leu Val Gln Lys Tyr Ser Asn Ser 35 40

<210> 2218

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2218

Met Val Ala Thr Lys Thr Phe Ala Leu Leu Leu Ser Leu Phe Leu 1 5 10 15

Ala Val Gly Leu Gly Glu Lys Lys Glu Gly His Phe Ser Ala Leu Pro 20 25 30

Ser Leu Pro Val Gly Ser His Ala Lys Val Ser Ser Pro Gln Pro Arg 35 40 45

Gly Pro Arg Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala 50 55 60

Met Asp Lys Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln 65 70 75 80

Lys Gly Lys Lys Asn Asp Trp Lys His Asn Ile Thr Gln Arg Glu Ala 85 90 95

Arg Ala Leu Glu Leu Ala Ser Gln Ala Asn Arg Lys Glu Glu Glu Ala 100 105 110

Val Glu Pro Gln Ser Ser Pro Ala Lys Asn Pro Ser Asp Glu Asp Leu 115 120 125

Leu Arg Asp Leu Leu Ile Gln Glu Leu Leu Ala Cys Leu Leu Asp Gln 130 135 140

Thr Asn Leu Cys Arg Leu Arg Ser Arg 145 150

<210> 2219

<211> 466

<212> PRT

<213> Homo sapiens

<400> 2219

Met Thr Thr Ser Pro Ile Leu Gln Leu Leu Leu Arg Leu Ser Leu Cys

Gly	Leu	Leu	Leu 20	Gln	Arg	Ala	Glu	Thr 25	Gly	Ser	Lys	Gly	Gln 30	Thr	Ala
Gly	Glu	Leu 35	Tyr	Gln	Arg	Trp	Glu 40	Arg	Tyr	Arg	Arg	Glu 45	Cys	Gln	Glu
Thr	Leu 50	Ala	Ala	Ala	Glu	Pro 55	Pro	Ser	Gly	Leu	Ala 60	Суѕ	Asn	Gly	Ser
Phe 65	Asp	Met	Tyr	Val	Cys 70	Trp	Asp	Tyr	Ala	Ala 75	Pro	Asn	Ala	Thr	Ala 80
Arg	Alá	Ser	Cys	Pro 85	Trp	Tyr	Leu	Pro	Trp 90	His	His	His	Val	Ala 95	Ala
Gly	Phe	Val	Leu 100	Arg	Gln	Cys	Gly	Ser 105	Asp	Gly	Gln	Trp	Gly 110	Leu	Trp
Arg	Asp	His 115	Thr	Gln	Cys	Glu	Asn 120	Pro	Glu	Lys	Asn	Glu 125	Ala	Phe	Leu
Asp	Gln 130	Arg	Leu	Ile	Leu	Glu 135	Arg	Leu	Gln	Val	Met 140	Tyr	Thr	Val	Gly
Туг 145	Ser	Leu	Ser	Leu	Ala 150	Thr	Leu	Leu	Leu	Ala 155	Leu	Leu	Ile	Leu	Ser 160
Leu	Phe	Arg	Arg	Leu 165	His	Cys	Thr	Arg	Asn 170	Tyr	Ile	His	Ile	Asn 175	Leu
Phe	Thr	Ser	Phe 180	Met	Leu	Arg	Ala	Ala 185	Ala	Ile	Leu	Ser	Arg 190	Asp	Arg
Leu	Leu	Pro 195	Arg	Pro	Gly	Pro	Tyr 200	Leu	Gly	Asp	Gln	Ala 205	Leu	Ala	Leu
Trp	Asn 210	Gln	Ala	Leu	Ala	Ala 215	Cys	Arg	Thr	Ala	Gln 220	Ile	Val	Thr	Gln
Tyr 225	Cys	Val	Gly	Ala	Asn 230	Tyr	Thr	Trp	Leu	Leu 235	Val	Glu	Gly	Val	Tyr 240
Leu	His	Ser	Leu	Leu 245	Val	Leu	Val	Gly	G1y 250	Ser	Glu	Glu	Gly	His 255	Phe
Arg	Tyr	Tyr	Leu 260	Leu	Leu	Gly	Trp	Gly 265	Ala	Pro	Ala	Leu	Phe 270	Val	Ile
Pro	Trp	Val 275	Ile	Val	Arg	Tyr	Leu 280	Tyr	Glu	Asn	Thr	Gln 285	Cys	Trp	Glu
Arg	Asn 290	Glu	Va1	Lys	A1a	Ile 295	Trp	Trp	Ile	Ile	Arg 300	Thr	Pro	Ile	Leu
Met	Thr	Ile	Leu	Ile	Asn	Phe	Leu	Ile	Phe	Ile	Arg	Ile	Leu	Gly	Ile

Leu Leu Ser Lys Leu Arg Thr Arg Gln Met Arg Cys Arg Asp Tyr Arg 325 330330

Leu Arg Leu Ala Arg Ser Thr Leu Thr Leu Val Pro Leu Leu Gly Val

340 345 350

His Glu Val Val Phe Ala Pro Val Thr Glu Glu Gln Ala Arg Gly Ala 355 360 365

- Leu Arg Phe Ala Lys Leu Gly Phe Glu Ile Phe Leu Ser Ser Phe Gln 370 375 380
- Gly Phe Leu Val Ser Val Leu Tyr Cys Phe Ile Asn Lys Glu Val Gln 385 390 395 400
- Ser Glu Ile Arg Arg Gly Trp His His Cys Arg Leu Arg Arg Ser Leu 405 410 415
- Gly Glu Glu Gln Arg Gln Leu Pro Glu Arg Ala Phe Arg Ala Leu Pro 420 425 430
- Ser Gly Ser Gly Pro Gly Glu Val Pro Thr Ser Arg Gly Leu Ser Ser 435 440 445
- Gly Thr Leu Pro Gly Pro Gly Asn Glu Ala Ser Arg Glu Leu Glu Ser 450 455 460

Tyr Cys 465

<210> 2220

<211> 267

<212> PRT

<213> Homo sapiens

<400> 2220

Met Pro Arg Ser Cys Cys Ser Arg Ser Gly Ala Leu Leu Ala Leu 1 5 10 15

- Leu Leu Gln Ala Ser Met Glu Val Arg Gly Trp Cys Leu Glu Ser Ser
- Gln Cys Gln Asp Leu Thr Thr Glu Ser Asn Leu Leu Glu Cys Ile Arg $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$
- Ala Cys Lys Pro Asp Leu Ser Ala Glu Thr Pro Met Phe Pro Gly Asn 50 55 60
- Gly Asp Glu Gln Pro Leu Thr Glu Asn Pro Arg Lys Tyr Val Met Gly 65 70 75 80
- His Phe Arg Trp Asp Arg Phe Gly Arg Arg Asn Ser Ser Ser Gly
 85 90 95
- Ser Ser Gly Ala Gly Gln Lys Arg Glu Asp Val Ser Ala Gly Glu Asp 100 105 110
- Cys Gly Pro Leu Pro Glu Gly Gly Pro Glu Pro Arg Ser Asp Gly Ala 115 120 125
- Lys Pro Gly Pro Arg Glu Gly Lys Arg Ser Tyr Ser Met Glu His Phe 130 135 140
- Arg Trp Gly Lys Pro Val Gly Lys Lys Arg Arg Pro Val Lys Val Tyr 145 150 155 160

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Pro Asn Gly Ala Glu Asp Glu Ser Ala Glu Ala Phe Pro Leu Glu Phe
                                    170
                165
Lys Arg Glu Leu Thr Gly Gln Arg Leu Arg Glu Gly Asp Gly Pro Asp
Gly Pro Ala Asp Asp Gly Ala Gly Ala Gln Ala Asp Leu Glu His Ser
                            200
Leu Leu Val Ala Ala Glu Lys Lys Asp Glu Gly Pro Tyr Arg Met Glu
                        215
                                            220
His Phe Arg Trp Gly Ser Pro Pro Lys Asp Lys Arg Tyr Gly Gly Phe
Met Thr Ser Glu Lys Ser Gln Thr Pro Leu Val Thr Leu Phe Lys Asn
                                    250
Ala Ile Ile Lys Asn Ala Tyr Lys Lys Gly Glu
            260
<210> 2221
<211> 7
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 2221
Xaa Gln His Phe Arg Trp Gly
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<210> 2222
<211> 13
<212> PRT
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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Ser Tyr Ser Xaa Glu His Phe Arg Trp Gly Lys Pro Val

<400> 2222

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